Sierra Club of Canada: Say No to Nuclear Power

Not Safe - Not Clean - Not Economical - Not for Ontario

Take Action!

The Ontario government could make a decision on the province's electricity options as early as

this March.

Background

The McGuinty government claims to be in the process of consulting Ontarians about energy

options to address electricity needs in the coming years. However, the focus of the current

Ontario government is not on renewable energy and conservation; it's on nuclear power - a

technology that has a proven track record of being unsafe, unsustainable and uneconomical.

Documents obtained by Greenpeace and released to the Globe and indicate that supporters of

the nuclear industry at the federal and provincial levels are in the process of trying to fast-track

and entrench the Ônuclear option'.

In November 2005, senior officials of Ontario Power Generation held discussions with the

CNSC (Canadian Nuclear Safety Commission, the federal regulatory agency) about building a

new nuclear power reactor in Ontario. Two weeks after this meeting, the Ontario Power

Authority (OPA) released a series of recommendations on electricity planning, which

included

the recommendation that new reactors be built.

For its part, the CNSC through its president, suggested its staff help Ontario Power Generation

deal with its "lack of understanding" about environmental planning "... so they can produce the

right documents later." [1]

Efforts to resurrect nuclear power in Ontario have - along with promoting nuclear power as a

Ôsolution' to climate change - become key components in the nuclear industry's survival

strategy.

The industry needs a Ôsurvival strategy' for many reasons, including the following:

Nuclear power is not emission or waste-free

Routine emissions from nuclear reactors include a number of different elements such as

carbon-14 and tritium. The long half-lives of these radioactive elements (5730 years for

carbon-14 and 12.3 years for tritium) allow them to accumulate in the environment and in

living tissue. Over the years, leaks around nuclear reactors in Canada have raised levels

of tritium, a known carcinogen, well above background levels. [2]

Spent fuel from CANDU reactors contains over 200 deadly radioactive elements -

Byproducts of the fission process - including uranium, plutonium, cesium, and strontium.

Plutonium, for example, has a half-life of 24,400 years. Other waste byproducts have

half-lives as long as 710,000 years (uranium235) or 15.8 million years (iodine129). High-

level nuclear waste will remain toxic for periods far longer than recorded human history.

Nuclear power is not a "solution" to climate change

If the problems posed by high-level nuclear waste are not enough, there are far less

expensive ways to mitigate the consequences of climate change. Nearly twenty years

ago, the authors of a well-known study examined the abatement of CO2 emissions from

U.S. coal-fired power plants and found that every dollar invested in energy efficiency

displaced seven times as much CO2 emissions as the same dollar invested in nuclear

power. [3]

In a 2006 paper on the "economics and climate-protection potential" of nuclear power,

Amory Lovins reaffirms the advantages of energy efficiency over nuclear and adds ".... nuclear power saves as little as half as much carbon per dollar as windpower and traditional cogeneration, half to a ninth as much as innovative cogeneration, and as little as a tenth as much carbon per dollar as end-use efficiency. ..... Empirically, on the criteria of both cost and speed, nuclear power seems about the least effective climate-stabilizing option on offer. " [4]

Nuclear power has cost the Canadian public billions

Over a fifty year period (from 1953 to 2002), government subsidies to AECL (Atomic Energy of Canada Limited) totaled $17.5 billion (in 2001 dollars). Cost overruns on the last nuclear station to be built in Ontario at Darlington were in the billions of dollars. Debt incurred by Ontario Hydro (the predecessor to OPG) in the operations of its power reactors amounted to over $35 billion dollars. The public cost of decommissioning nuclear reactors and attempting to contain the waste products over extended timeframes has yet to be determined. [5]

Nuclear power has serious safety issues

Accidents at nuclear plants involving release of radioactive materials have had serious environmental and human health impacts, including exposure in the workplace. But it's not just Chernobyl or Three Mile Island that have raised concerns about the safety of nuclear power plants. In August 1997, following a series of safety problems at the Pickering nuclear station and elsewhere, Ontario Hydro Chairman William Farlinger announced that seven nuclear reactors would be closed and others repaired at a cost of several billion dollars. At the time, Farlinger stated that Ontario Hydro's nuclear division operated like a "special nuclear cult" [6].

Special treatment also extends to liability in the event of a nuclear power reactor accident. The nuclear industry in Canada has its own federal law, limiting civil liability for

off-site damages to $75 million, even if those damages are in the billions. No insurance company will insure private property against the consequences of a nuclear accident. [7]

What Can Be Done

The Ontario government could make a decision on the province's electricity options as early as

this March.

< Please write to the Premier of Ontario and your MPP. Tell them that you want the Ontario

government to undertake a comprehensive review of renewable energy and conservation

options and that you want meaningful, comprehensive public hearings on future electricity

generation in Ontario.

< Write Ontario Energy Minister Donna Cansfield and demand that the decision-making time

line be extended to allow the collection of all relevant information. The OPA Report

admitted no conservation targets were included because they lacked the data to include

them.

< The construction of a new nuclear power plant would cost billions of dollars and take over a

decade to complete. Ask decision makers how much renewable energy (i.e. wind power)

could be produced in the same timeframe using the same amount or less money.

< Write to the Prime Minister, leaders of the opposition and your MP. Urge them to ensure

that the CNSC functions at arms-length from the nuclear industry and that a record of all

meetings with utility and nuclear industry representatives including OPG, OPA and AECL

be made public.

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ent/MainMPsCompleteList.aspx?TimePerio

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14, 2006,

http://www.theglobeandmail.com/servlet/story/RTGAM.20060214.wxnukes14/BNStory/National/home

Shorter print version of story: "New nuclear plant planned near Toronto" Martin Mittelstaedt, *The Globe*

and Mail, February 14, 2006, p. A11

[2] In July 1997, it was revealed that Ontario Hydro the predecessor to Ontario Power Generation, had

failed to report tritium contamination of ground water on the Pickering site for a period of twenty years.

In 1979, 2,150,000 becquerels per litre (Bq/L) of tritium were found in groundwater, and in 1994

Ontario Hydro found 700,000 Bq/L.

The largest tritium release from a CANDU reactor to date occurred in 1992, when a tube-break in

Pickering Reactor #1 dumped 2,000 litres of heavy water contaminated with 2,300 trillion becquerels of radioactive tritium into Lake Ontario, shutting down a nearby drinking water plant, and raising tritium levels in Toronto drinking water. (See: http://www.ccnr.org/nucaware_hydroletter.html)

Under Ontario legislation (Safe Drinking Water Act, 2002) the standard for tritium in drinking water is currently set at 7,000 Bq/L. However, the Ontario Advisory Committee on Environmental Standards (ACES) had recommended in 1994 that the level of 7,000 Bq/L be reduced to 100 Bq/L, and brought down to 20 Bq/L within five years. The ACES recommendations were rejected by the Ontario government in 1995.

[3] Bill Keepin and Gregory Kats, "Greenhouse Warming: comparative analysis of nuclear and energy efficiency abatement strategies" *Energy Policy*, vol. 16, no. 6 (December 1988).

[4] Amory B. Lovins, "Nuclear power: economics and climate-protection potential" Rocky Mountain Institute, 11 September 2005, updated 6 January 2006, p. 15,

http://www.rmi.org/images/other/Energy/E05-14_NukePwrEcon.pdf

[5] David H. Martin, "Canadian Nuclear Subsidies: Fifty Years of Futile Funding" January 2003, Campaign

for Nuclear Phaseout, http://www.cnp.ca/resources/nuclear-subsidies-at-50.pdf

[6] *Toronto Star* and other newspapers, August 14, 1997

[7] Gordon Edwards, "The Historical Origins of Canada's Nuclear Liability Act" April 22, 1997

http://www.ccnr.org/insurance.html

Canada, Department of Justice, *Nuclear Liability Act*, Chapter N-28

http://laws.justice.gc.ca/en/N-28/203618.html

For further information

ccnr.org

cnp.ca

sierraclub.ca