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Phase-out Coal-Fired Power Plants

A resolution adopted by the Ontario Public Health Association (OPHA)

Code: 2003-01 (RES) Status: Active

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Resolution

WHEREAS coal-fired power plants were responsible for about 23% of the sulphur dioxide, 14% of the nitrogen oxides, 23% of the mercury, and 20% of the greenhouse gases emitted from all sources in Ontario in 2001;

WHEREAS sulphur dioxide and nitrogen oxides are precursors of the particulate portion of smog which has been consistently associated with increases in heart disease, lung disease, lung cancer and premature deaths;

WHEREAS nitrogen oxides are also precursors of ground-level ozone, the air pollutant responsible for most of the smog alerts called in this province;

WHEREAS global climate change -- which the Intergovernmental Panel on Climate Change (IPCC) attributes to increasing concentrations of greenhouse gases in the atmosphere -- threatens to disrupt ecosystems in regions around the earth upon which all life is dependent;

WHEREAS Canada is committed under the Kyoto Protocol to reduce greenhouse gas emissions to 6% below 1990 levels between 2008 and 2012;

WHEREAS mercury, a highly toxic element that accumulates in the food chain, has been associated with adverse neurodevelopment effects in children of mothers who consume fish during pregnancy;

WHEREAS mercury is responsible for 99% of the consumption restrictions placed on fish in inland lakes in Ontario;

WHEREAS estimates indicate that the electricity generated in the six coal-fired power plants in Ontario in 2001 (i.e. 40,000 Gigawatt-hours) could be displaced with energy efficiency measures (i.e. 30,000 GWh) and replaced with co-generation (i.e. 10,000 GWh) and renewable energy (e.g. 5,000 GWh) by 2012;

WHEREAS electricity could also be supplied with high efficiency natural gas generators which virtually eliminate emissions of sulphur dioxide and mercury while reducing emissions of nitrogen oxides and carbon dioxide (a greenhouse gas) by 90% and 60% respectively relative to coal plants;

BE IT RESOLVED THAT the OPHA encourage **all three levels of government** to take steps to support the:

- 1. Phase-out coal-fired power plants in **Canada** by 2010;
- 2. Systematically and effectively encourage increased energy efficiency in residential, commercial and industrial settings;
- 3. Aggressively promote the development of renewable energies.

Reason for the Updated Resolution

This resolution is being submitted to update and revise resolution 1999-01, "Health Impacts of Coal-Fired Generating Stations" which was downloaded from the OPHA website 381 times between January 1st and June 30th 2003. Since approving the earlier resolution, the OPHA has examined the issue in detail, sought the views of a Project Advisory Committee which included representatives from the 7 public health units and the OPHA Environmental Health Working Group, and prepared a report, "Beyond Coal: Power, Public Health and the Environment". The 1999 resolution had promoted the use of high efficiency natural gas generators as the alternative to coal-fired power plants, while the new resolution, which reflects the consensus of the "Beyond Coal" Project Advisory Committee, promotes energy efficiency and renewable technologies as the alternative to coal-fired power plants, with some reliance on natural gas generators as a transitional technology.

Background

The five coal-fired power plants in Ontario generated about 40,000 Gigawatt-hours (GWh) of electricity (or 28%) in 2001. TorrieSmith Associates estimate that by 2012:

- energy efficiency programs could reduce electricity demand in Ontario by 30,000 GWh;
- industrial and commercial co-generation (i.e. simultaneous generation of electricity and heat for space and/or water heating) could produce 10,000 GWh of electricity; and
- renewable technologies could produce 5,000 GWh of electricity.

When supplemented with electricity generated in high efficiency natural gas generators, we believe that it should be possible to phase-out coal-fired power plants in Ontario by 2010 in a cost effective way.

In the OPHA report, "Beyond Coal", it is recommended, among other things, that the OPHA:

- A. Encourage the Provincial government to:
 - 1. Phase-out coal-fired power plants in Ontario by 2010;
 - 2. Instruct the Ontario Energy Board to establish a shared savings mechanism that rewards electrical utilities for investing in energy efficiency programs that effectively reduce electricity consumption while also reducing consumers' bills:
 - 3. Establish a schedule of increasing Renewable Portfolio Standards that meets or exceeds the most ambitious program established in North America; and
 - 4. Move immediately to revise the Ontario Building Code to incorporate the most advanced science with respect to renewable energies, co-generation and energy efficiency;

B. Encourage the federal government to:

- 1. Establish regulations under the Canadian Environmental Protection Act that encourage the phase-out of coal-fired power plants across the country by 2010;
- 2. Establish a schedule of ambitious and increasing renewable energy targets to guide the development of energy policies, environmental regulation, and budgetary commitments at the federal levels for years to come;
- 3. Provide financial support to renewable technologies that is equal to that traditionally provided to conventional energy sources; and
- 4. Provide municipalities with stable funding, that is not dependent upon the participation of the province, with which to promote energy efficiency projects within their communities;

C. Encourage municipalities to:

- Establish ambitious energy efficiency programs that include specific targets and timelines for their corporate operations and ensure that financial savings are re-invested in energy efficiency projects and/or used to support purchasing policies that favour renewable energies and low emission generators of electricity;
- 2. Develop and implement corporate purchasing policies that favour renewable energies and low emission generators of electricity;
- 3. Establish programs to encourage large organizations within their communities to adopt purchasing policies that favour renewable energies and low emissions generators of electricity; and
- 4. Establish social marketing programs to encourage energy conservation efforts among individuals in their communities.

Implementation

The OPHA Air Quality Program and the OPHA Environmental Health Working Group will seek opportunities to educate the public and decision-makers about the need to phase-out coal-fired power plants to improve air quality, retard global climate change, and to prevent the release of mercury into the environment, by encouraging energy efficiency and renewable technologies.

Reference

OPHA, "Beyond Coal: Power, Public Health and the Environment", November 2002.