



Nanticoke: The air pollution giant on our doorstep

The Nanticoke Generating Station, located on the north shore of Lake Erie is the largest coal-fired power plant in North America and Canada's No. 1 air polluter.

According to the Ontario Medical Association (OMA), air pollution is "a public health crisis" in Ontario. The OMA says that air pollution kills over 5,900 people per year in Ontario and costs our economy over \$7.8 billion per year in health care costs, lost work time and other quantifiable expenses.

- Nanticoke is Canada's single largest source of greenhouse gas emissions that cause climate change, which threatens our health, our environment and our future.
- Nanticoke is Ontario's single largest source of smog-causing nitrogen oxides emissions.
- Nanticoke is Ontario's single largest source of airborne mercury emissions. Mercury is a neurotoxin that can cross the placental and blood-brain barrier and cause pre-natal harm. It has also been linked to developmental and behavioural problems in children.
- Nanticoke is southern Ontario's single largest source of sulphur dioxide emissions. Sulphur dioxide can lead to the creation of small particulate matter, which can be inhaled deep in our lungs and cause asthma attacks, heart disease, lung disease, strokes and death.
- Nanticoke produces as much pollution as 3.3 million cars.
- Nanticoke alone kills approximately 430 people per year in Ontario.

Phase-out indefinitely delayed

On June 13, 2006, in response to pressure from the Association of Major Power Consumers in Ontario (e.g., Imperial Oil, PetroCanada, St. Marys Cement), Premier McGuinty broke his promise to phase-out coal-burning at Nanticoke by 2009. The Premier then asked the Ontario Power Authority (OPA) to propose a new phase-out date. The OPA, in turn, recommended continuing to burn coal until at least 2014 and has stated that it may be needed after that if nuclear plants are not back in service or major new transmission line projects are not completed.

We simply cannot live with the pollution and climate-change impacts of Nanticoke for another decade or more. We must take action today to reduce the number of smog days and the growing impact of climate change in order to decrease the risk to our health and our environment created by poor air quality and unchecked global warming.

A better solution

Fortunately, there is a straightforward solution that will deliver significant air-quality benefits today and set the stage for the development of a clean, green electricity system in a generation. By directing Ontario Power Generation (OPG) to convert Nanticoke's boilers from dirty coal to cleaner burning natural gas, we can slash Nanticoke's emissions of noxious smog builders and greenhouse gases and eliminate its emissions of toxins like mercury and lead.

Ontario's short to mid-term electricity need is for peaking power on hot summer days. A retrofitted Nanticoke plant could help fill this gap with cleaner climate-responsible power. Meanwhile, the province's current supply of baseload power from Nanticoke will be more than offset by new water power and high-efficiency natural gas-fired power plants currently under development. In the longer term, improving the province's electricity productivity (GDP per kWh), significantly increasing our use of combined heat and power generation and recycled industrial waste heat, and developing a wide array of renewable pow-

er sources — solar, geothermal, small hydro, wind, biomass, etc. — can cleanly and efficiently address the province's electricity needs.

Phasing-out coal burning at Nanticoke will also provide Ontario with approximately one-third of the total greenhouse gas emission reductions the entire province needs to achieve compliance with its Kyoto Protocol target for 2010.

A cost-effective solution for cleaner air

According to the OPA, the capital cost of a Nanticoke conversion would be \$540 to \$750 million, which is at least \$1.2 billion *cheaper* than the \$1.9 billion cost of installing end-of-pipe pollution controls. Such controls would provide inferior emission results compared to converting to gas, and will not reduce Nanticoke's enormous greenhouse gas emissions by a single tonne. Meanwhile, the natural gas demand and cost impact of converting Nanticoke would be negligible as the plant would only be used to meet peak demand on the hottest summer days.

In 2001, Ontario's former Minister of the Environment, Elizabeth Witmer, issued a legally binding regulation that required OPG to phase-out coal-burning at the Lakeview Generating Station in Mississauga by April 30, 2005. As a result, coal burning at Lakeview ceased in April 2005 with no unforeseen delays. The Ontario Clean Air Alliance is now asking the Government of Ontario to promulgate a legally binding regulation that will require OPG to phase-out coal-burning at Nanticoke in 2009.

More information

For more on how we can end coal burning at Nanticoke, please see our *Phasing Out Coal: 2006 Progress Report* and *An End to Dirty Power* report on our website at www.cleanairalliance.org.

Fig. 1 — Primary fall-out area for air pollutants from the Nanticoke Generating Station



The thousands of tonnes of sulphur dioxide (SO₂) and nitrogen oxides – prime components of smog and deadly small particulate matter – released by the giant Nanticoke Generating Station, are carried across Southern Ontario and Quebec and can travel as far as the East Coast.

Meanwhile, harmful emissions of mercury from Nanticoke lead to contamination of fish in Lake Ontario and other water bodies, while acid rain generated by Nanticoke's SO₂ emissions harms all sorts of plant life – including urban forests.

Worst of all, Nanticoke is Canada's No. 1 emitter of greenhouse gases, making it the country's leading contributor to dangerous climate change. For cities, climate change promises more heat-related deaths and illnesses and damage from erratic and increasingly deadly weather patterns.