

Finishing the coal phase out

An historic opportunity for climate leadership

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In 2001, the Government of Ontario issued a legally binding regulation requiring the phase-out of coal-burning at the Lakeview Generating Station in Mississauga by April 30, 2005.

In 2007 the Government of Ontario issued a legally binding regulation requiring the cessation of coal-burning at Ontario's four remaining coal-fired power plants by December 31, 2014.¹

Ontario's coal phase-out is the single largest greenhouse gas emission reduction initiative in North America – equivalent to taking almost seven million cars off the road.² Bringing the coal phase out to a successful conclusion as soon as possible will position Ontario as a global leader in addressing climate change and compliment the province's efforts to reposition itself as a green energy and economy leader.

2010 in Review

- Ontario's coal-fired electricity generation rose by 29% in 2010 – from 9.8 billion kWh in 2009 to 12.6 billion kWh in 2010.³
- In 2010 Ontario's electricity exports (15.2 billion kWh) exceeded its total coal-fired electricity generation (12.6 billion kWh) by 21%.⁴
- According to a study prepared for the Government of Ontario, Ontario's coal-fired electricity generation in 2010 caused 316 deaths, 440 hospital admissions, 522 emergency room visits and 158,000 minor illnesses (e.g., asthma attacks) in Ontario.⁵
- Coal-fired generation is no longer profitable for Ontario Power Generation (OPG). During the first nine months of 2010 OPG received a \$167 million subsidy from Ontario's electricity consumers to compensate it for the operating losses of its Nanticoke and Lambton coal-fired power plants.⁶

We Can Phase-Out Coal Now

Ontario's coal-free generation capacity is now 28% greater than our forecast peak demand during the summer of 2011 and 33% greater than our forecast peak demand in 2014.⁷

Given that Ontario's coal-free generation capacity now exceeds our peak day demand by 28%, under normal conditions, our need for coal-fired electricity is negligible. Nevertheless, according to the Ontario Power Authority, we need to retain some of our coal capacity on **standby reserve** until December 31, 2014 because the "Pickering nuclear units could reach the end of their operating lives sooner than expected."⁸

Furthermore, according to the Independent Electricity System Operator, one or more of the Nanticoke units may need to be operated at minimum output from time-to-time to provide grid stability.⁹

The need to maintain some of our coal plants on **standby reserve** until the legally binding date for a complete coal phase-out (December 31, 2014), however, does not mean that we need to continue to use them to produce dirty electricity in the absence of an emergency or a need to support grid stability.

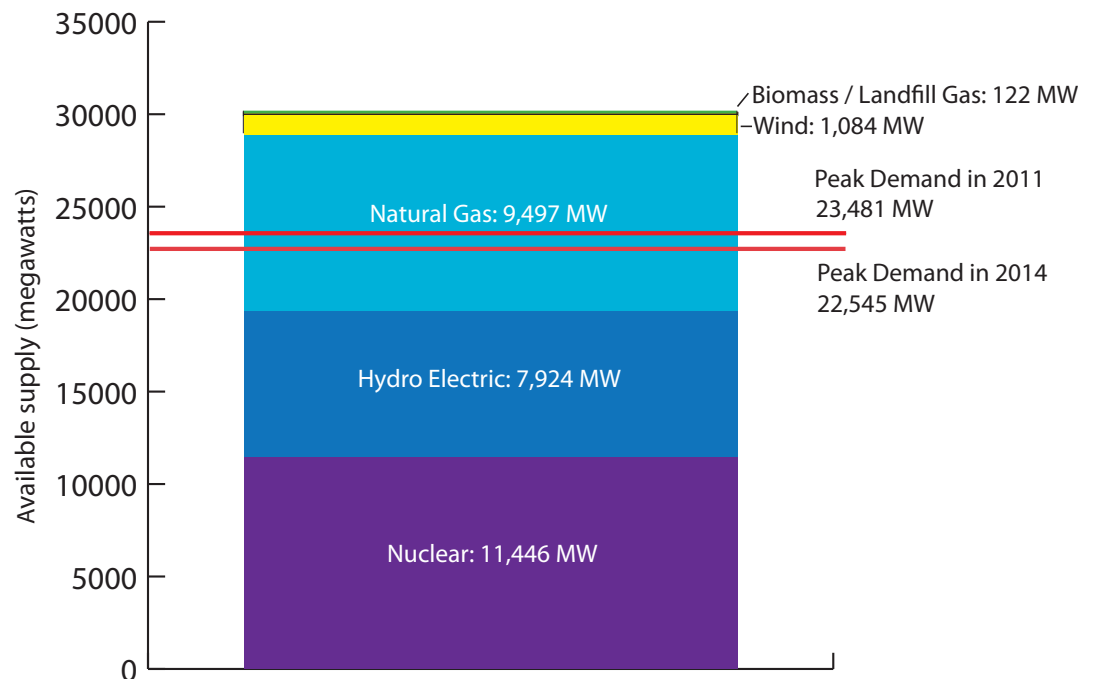
Conclusions

By achieving a virtually complete coal phase-out now we can protect public health and provide climate change leadership to Canada, the United States, China and the World.

Recommendations

1. Premier McGuinty should direct Ontario Power Generation to put its dirty coal plants on **standby reserve** immediately and **only operate them if they are absolutely needed to keep the lights on in Ontario**.
2. To protect the climate and air quality gains created by Ontario's coal phase out, Premier McGuinty should direct the Independent Electricity System Operator to import coal-fired electricity from the U.S. only if there is no other option to keep the lights on in Ontario.*

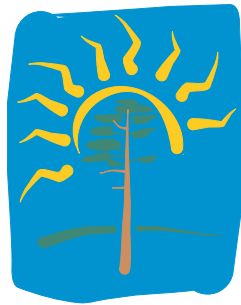
Ontario's Coal-Free Generation Capacity and Projected Peak Demand



* The IESO has a policy of importing coal-fired electricity whenever its "financial" cost (excluding public health and environmental costs) is less than the "financial" cost of the next unit of domestic electricity generation. This undermines the whole purpose of the coal phase-out. We should only import coal-fired electricity if there is no other option to keep the lights on in Ontario.

Endnotes

1. Ontario Regulation 496/07, *Ontario Regulation made under the Environmental Protection Act: Cessation of Coal Use – Atikokan, Lambton, Nanticoke and Thunder Bay Generating Stations*.
2. Independent Electricity System Operator (IESO), *The Ontario Reliability Outlook*, (December 2008), p. 5. Available online at: http://www.ieso.ca/imoweb/siteshared/pubs_library.asp?sid=ic
3. IESO, *News Release*, “Diverse Supply Mix Provides Flexibility in Operating Ontario’s Power System – Integration of Renewable Resources Well Underway”, (January 7, 2011).
4. IESO, *News Release*, “Diverse Supply Mix Provides Flexibility in Operating Ontario’s Power System – Integration of Renewable Resources Well Underway”, (January 7, 2011).
5. Each billion kWh of coal-fired electricity generation in Ontario: a) kills 25.1 people in Ontario; b) causes 34.9 hospital admissions in Ontario; c) causes 41.4 emergency room visits in Ontario; and d) causes 12,543.6 minor illnesses in Ontario. See DSS Management Consultants Inc. & RWDI Air Inc., *Cost Benefit Analysis: Replacing Ontario’s Coal-Fired Electricity Generation*, Prepared for Ontario Ministry of Energy, (April, 2005), pp. 4, 5 & 26. In 2010, Ontario’s coal-fired electricity generation equaled 12.6 billion kWh. See IESO, *News Release*, “Diverse Supply Mix Provides Flexibility in Operating Ontario’s Power System – Integration of Renewable Resources Well Underway”, (January 7, 2011).
6. Ontario Power Generation, *2010 Third Quarter Report*, page 28. Available online at http://www.opg.com/investor/pdf/2010_Q3_FullRpt.pdf.
7. IESO, *18-Month Outlook: From December 2010 to May 2012*, (December 3, 2010), pp. 3 & 4; and IESO, *Ontario Reserve Margin Requirements: 2011-2015*, (December 20, 2010), p. 3. Available online at <http://www.ieso.ca/imoweb/monthsYears/monthsAhead.asp> and <http://www.ieso.ca/imoweb/pubs/marketReports/Ontario-Reserve-Margin-Requirements-2011-2015.pdf>.
8. Ontario Power Authority, *Integrated Power System Plan*, Exhibit D, Tab 2, Schedule 1, Page 3; Corrected May 5, 2008. Available online at: www.powerauthority.on.ca/Page.asp?PageID=924&SiteNodeID=320.
9. Telephone conversation with Terry Young and Kim Warren, IESO, Feb. 12, 2010 and email from Terry Young, January 4, 2011.



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