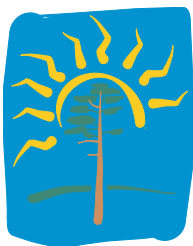


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Ontario's Coal Phase Out

Lessons
learned from
a massive
climate
achievement

by Brad Cundiff
April 2015



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Ontario's Coal Phase Out: Lessons learned from a massive climate achievement

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Author: Brad Cundiff, Green Living Communications

Cover photograph: Demolition of Lakeview coal plant by *Toronto Star*

Preface

When we started the campaign to get rid of dirty coal, few thought we would succeed. Eliminating coal use meant getting the province's giant electric utility to abandon a source of cheap, albeit highly polluting, energy. It meant convincing political leaders that Ontario could make the transition to cleaner electricity sources without the lights going out and bills soaring. And it meant massively increasing public understanding of the threat posed by coal, its role in the province's electricity system, and cleaner alternatives.

Coal's oversized pollution footprint, however, also made it a huge opportunity to drive massive improvements in air quality and to make major progress in reducing climate destabilizing emissions. The task, then, was to tell an effective story about what could be gained by shifting away from coal and how we could keep the lights on without it.

Our success in doing that was thanks to efforts of many people and organizations who believed in our vision of a coal-free Ontario. I would particularly like to thank the Ontario Medical Association and the Toronto Public Health, especially the late Dr. Sheela Basrur, for making the health impacts story so compelling.

The OCAA has always prided itself on high quality research and Steven Diener and Sarah Rang ensured that standard was upheld in their reports looking at economic impacts and polluting emissions.

Brad Cundiff and David Oved shaped a great story on everything from the threat posed by privatization of the Lakeview power plant to the giant climate impact of the Nanti-coke plant. Without their compelling messages and work to connect our research with average people's lives, we would not have succeeded.

The early momentum our campaign achieved was also helped by the sharp mind of Sara Bjorkquist, the OCAA's Vice-Chair. Sara later took the message about the benefits of abandoning coal to Ottawa and helped to make a believer out of federal Environment Minister David Anderson.

Over the 17 years it took to move Ontario away from coal, I was assisted by a bright and talented series of outreach coordinators, including Mary Louise Colantonio, Jessica Fracassi, Fatima Crerar, Mark Singh and Manisha Patel. Angela Bischoff continues the OCAA tradition of high-powered outreach today.

Of course, none of this would have happened without the support of our funders, who understood that phasing out coal was not going to happen overnight, but also that achieving our goal would have transformational impacts. I would like to thank the Toronto Atmospheric Fund, the Metcalf Foundation, the Laidlaw Foundation, and the Salamander Foundation for setting the wheels in motion. I would also like to thank the Taylor Irwin Family Fund, the Peacock Foundation and the Echo Foundation for helping us to build on the benefits of phasing out coal.

Lastly, a thank you to the people of Ontario who got behind our campaign to end dirty coal use and who stood firm in the face of opposition and delays. It was this overwhelming and unwavering public support that made the impossible possible.

A handwritten signature in black ink that reads "Jack Gibbons". The signature is written in a cursive, flowing style.

Jack Gibbons
Chair, OCAA

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The Nanticoke Generating Station on Lake Erie was the largest coal-fired plant in North America and Canada's single largest air polluter.




Introduction

In the 1990s, coal-fired electricity represented the largest single source of air-polluting and climate-destabilizing emissions in Ontario. The province's five coal plants were the leading industrial sources of sulphur dioxide, nitrogen oxide, particulate matter, mercury, arsenic, lead and carbon dioxide. The Nanticoke coal-fired generating station was the largest coal plant in North America – and Canada's biggest single air polluter. The Lakeview coal plant, located in the heart of the province's largest urban area, was one of the continent's largest when it was first constructed in the 1960s and was the largest source of air-polluting emissions in the Greater Toronto Area. At its peak in 2000, coal produced 28% of the province's electricity.

In hindsight, it seems obvious that phasing out coal was the right thing to do. But it took 17 years, a relentless public outreach and government relations campaign, and the work of many people, to make it happen.

The challenge of phasing out coal was enormous. Ontario Hydro, owner of the five coal plants, was one of the biggest electric utilities in the world and had no desire to end the use of cheap coal. Nor did the union representing workers at the five plants.



The challenge of phasing out coal was enormous. Ontario Hydro had no interest in ending use of cheap coal. And the province's biggest power users did not pay for the pollution created with dirty coal generation.

Phasing out coal was also not in the economic interest of the province's biggest power users, who did not pay the cost of the pollution generated by the plants, but benefitted from "cheap" power produced by burning coal. The Association of Major Power Consumers of Ontario would prove to be a formidable opponent of the coal phase out.

Equally importantly, the province had long embraced a philosophy that cheap power was the key to economic success and individual prosperity. The province had long

strived to keep power prices artificially low and both politicians and bureaucrats were loath to see rates increase. The result was an entrenched opposition to a coal phase out in the province's energy bureaucracy and associated agencies. These agencies did their best to raise red flags (and red herrings) and to introduce new hurdles to the plan to phase out coal even after the political winds had shifted in favour of ending dirty coal use.



These circumstances make it even more remarkable that a tiny organization that never had more than two full-time staff members was able to drive one of the biggest transitions in the province's history. But a combination of rigorous research, savvy communications, adaptive strategy, powerful allies and good timing led to a breakthrough commitment to phase out coal.

While then Opposition Leader Dalton McGuinty was the first to embrace the call for a coal phase out, calling for a switch to cleaner burning natural gas in 1999, the first concrete step toward a coal-free future was the Mike Harris Progressive Conservative government's commitment in 2001 to close the Lakeview Generating Station. On September 18, 2002, the Ernie Eves PC government promised to close the four remaining plants by 2015, in response to McGuinty's promise, made nine days earlier, to phase them out by 2007.


In just a couple of years, the Ontario Clean Air Alliance (OCAA) had laid the groundwork for a political and public consensus that coal had to go in Ontario. The how and the when would prove trickier and prove the mettle of this small organization as it fought setbacks and stalling to achieve a true breakthrough on air pollution and climate.

While it took until 2014 to actually see all five plants end coal burning, the use of coal had dropped to negligible levels as early as 2011 (at that point accounting for less than 3% of the province's electricity generation). The result was the largest single reduction in greenhouse-gas (GHG) emissions in North America — the equivalent of taking seven million cars off the road.

Equally important, a precedent had been set that demonstrated that it was possible to take meaningful action on climate change and air quality without stalling economic growth or lowering quality of life. In 2014, Ontario became the first jurisdiction in the world to completely end the use of coal for electricity generation to achieve health and environmental goals.

This report looks at the lessons learned during this groundbreaking campaign and the elements that came together to create one of the most successful environmental initiatives in Canada's history.

The themes explored include:



Framing an effective argument about both the need to phase out coal and how it could be replaced. Identifying coal as a major source of air pollution and toxics that were directly harming Ontarians (particularly children) rather than simply focusing on the less tangible issue of air pollution in general was a new approach for environmental campaigning.


Building alliances with a wide range of groups and individuals to build a societal consensus around the need to phase out coal. The OCAA's coalition-style approach created a big tent for everyone from community groups to municipalities to support its call for an end to coal use. Strategic partnerships with powerful health organizations, including the Ontario Medical Association and a number of public health agencies, helped to build the demand for the solutions the OCAA was promoting. Recruiting political allies while remaining politically non-partisan also created support for action within government.

Framing a "reasonable" alternative that made sense to the average Ontarian and was easily understandable ("cost of a cup of coffee and a doughnut a month"). This was helped by efforts by the province's doctors to highlight the flip-side cost of inaction and by the strong reputation for economic analysis developed by the OCAA and its Chair, economist Jack Gibbons. Using highly credible and experienced consultants and involving Ontario Hydro/Ontario Power Generation in the analysis of alternatives also made the OCAA's conclusions about their viability bulletproof.


Presenting the move away from coal as a phased "transition" and incrementally moving to a call for a full phase out to keep the campaign in sync with evolving public opinion. The OCAA later wove in the goal of moving to a 100% renewable electricity grid as a way of building on the achievement of the coal phase out.

Rigorously and regularly quantifying the impacts of coal burning, from health costs to acid rain and mercury contamination. This work helped to paint an evocative picture of the huge impacts of coal burning and sustained the public interest in seeing coal plants closed. A map illustrating the pollution plume of the giant Nanticoke plant came to represent the "black cloud" that coal plants had left hanging over Ontario.


Finding the right messenger. For health costs, having the province's top medical association label air pollution "a public health crisis" had far more effect than any statements put out by environmental organizations on the dangers of coal. Similarly, presenting the OCAA's chief spokesperson as a buttoned-down economist made its message about the low cost of ending coal burning credible. And having a "no nonsense" suburban mayor strongly support the shutdown of a local coal plant gave the public confidence that such a step was simple common sense.




Taking advantage of a changing political landscape. The OCAA made it its business to know where every party leader (and would-be party leader) stood on the issue of phasing out coal. Securing commitments from “governments-in-waiting” (e.g., opposition leaders and party leadership candidates) was seen as every bit as key as getting action from government, especially given changing political winds. More importantly, the key was to raise the issue of phasing out coal above partisan divides to make it a “motherhood” commitment where parties argued about deadlines instead of whether it should be done.



Bouncing back from setbacks and seeing the challenge through. The vast majority of the public may have been onside with the idea of ending coal use, but powerful interests both inside and outside government were far less keen on the idea. The OCAA never made the mistake of assuming the issue was “won” and when major setbacks did occur — such as the open-ended delay announced in 2006 — it quickly developed effective strategies to get the process back on track.



Taking the long view. The OCAA wasn’t just interested in ending coal use; it wanted to transform Ontario’s approach to electricity generation and use. Just as with its work on the coal phase out, it identified the major barriers and potential policy levers that needed to be worked to push the province toward a highly efficient 100% renewable electricity grid. The need to replace coal opened the door to stronger efforts to entrench an energy-efficiency culture in the province, for example, and to launch a discussion of greater electricity system integration with Quebec.



Creating an opportunity for bold political leadership. The OCAA’s work to define the problem and to highlight a solution created an opening for bold leadership. Dalton McGuinty seized that opportunity and used it to differentiate his party as one that understood the need for government to take action to protect the environment and health. McGuinty’s championing of the phase out forced the PC government to respond with incremental steps, such as closing the Lakeview plant and promising to end all coal use by 2015. But McGuinty’s more clear-cut and assertive position of achieving a full coal phase out by 2007 contributed strongly to his election as Premier in 2003. While he failed to achieve the 2007 goal, he did the heavy lifting that led to a virtual coal phase out by 2011 and a complete coal phase out on April 8, 2014.

Seeing – and seizing – the opportunity

Sara Bjorkquist, the Ontario Clean Air Alliance's founding Vice-Chair, remembers it well. It was one of the first warm spring days after a long winter. Bjorkquist was fired up to get outside and play some beach volleyball but it was also a day when air quality was terrible – “it made your lungs hurt,” she recalls. Friends were talking about wanting to go for a run and how the poor air quality made it impossible. “Around that time it seemed like smog alerts were part of every weather forecast,” she remembers.

Bjorkquist wasn't imagining these conditions — and they were about to get worse. Thanks to shutdowns of a number of nuclear units due to poor performance and safety issues in 1998, use of coal to produce electricity soared – increasing by 120% between 1995 and 2002, making a bad air situation even worse.

Smog was tangible in the air — people could see it and taste it. And smog alerts were being issued for parts of the province, such as cottage country, that the public perceived as pristine, a place to get away from city bustle — and smog.

Bruce Lourie, then a consultant to the Laidlaw Foundation, now President of the Ivey Foundation, had spent a lot of time thinking about smog and toxins and their impact on children's health in particular. And he kept coming back to one major source: The province's five coal plants. “What if we just shut them down?” he thought.

Lourie sat down with some of the leading air pollution and energy campaigners in the province and laid out his idea for a coal phase out. Clearly, it was a very ambitious objective — replacing a quarter of the province's electricity generation capacity with cleaner sources — but Lourie was convinced it hit a “sweet spot” for both “do-ability and urgency.”

On the do-ability side, the province's coal plants were old and getting older. The province also had no vested interest in coal — it had no coal deposits or coal-mining industry. Unlike the U.S., where private utilities and the coal-mining industry banded together to create a powerful and well-funded “Clean Coal” coalition, opposition would run more below the radar in Ontario.

Martin Edmonds



End-of-pipe solutions were also of limited value because they could do little or nothing about toxins such as mercury or about the coal plants' enormous CO₂ emissions. With concern about climate change picking up steam, and every summer feeling hotter than the last, it seemed like an ideal time to talk about eliminating the province's No. 1 source of greenhouse gases as a way to meet the province's emission reduction obligations that flowed from the 1997 signing of the Kyoto Protocol.

On the issue of urgency, there was the growing number of smog days being declared, which seemed to start earlier and earlier each year. And it wasn't just Ontarians who were affected. Major pressure was coming from New York State to take action to im-

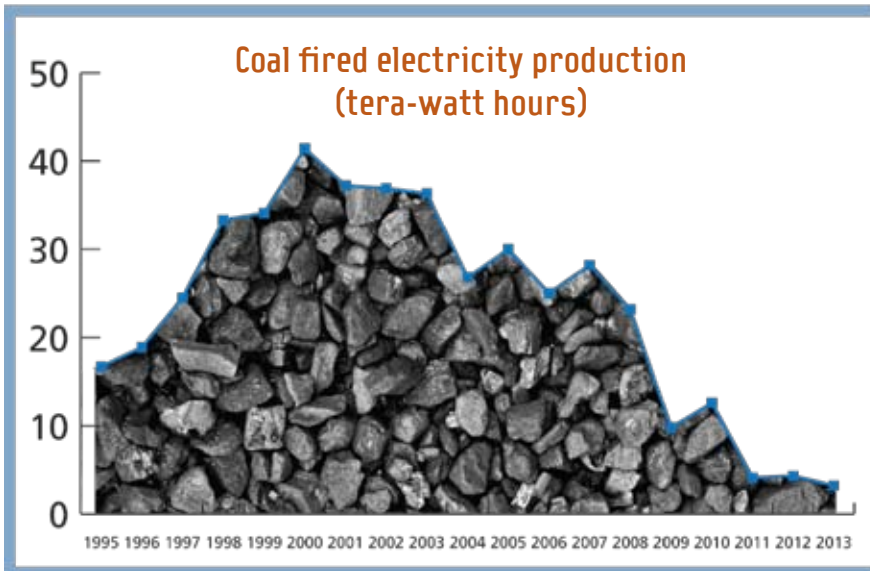
prove air quality. In fact, the New York State government was not shy about pointing a finger at Ontario's coal plants — particularly Nanticoke — as a culprit for its own air-quality problems.

Meanwhile, the federal government was deep in negotiations on revisions to the bilateral Canada-U.S. Air Quality Agreement through the addition of a new "Ozone Annex" (officially signed in 2000), which would cap emissions of nitrogen oxides from stationary sources in Ontario at 39 kilotonnes by 2007. According to Environment

Canada, meeting this target would require Ontario to reduce nitrogen oxide (NO_x) and volatile organic compound (VOC) emissions by 45% from 1990 levels.¹

In the same period, the Canadian Council of Ministers of the Environment was also at work on Canada-wide standards for particulate matter and ozone. Achieving these standards was not going to be easy as the Council outlined in a 2006 assessment², finding that as of that year:

- At least 40% of Canadians lived in communities where ambient ozone levels were above the target Canada-wide Standard, and;



- At least 30% of Canadians lived in communities where ambient levels for particulate matter (PM_{2.5}) were above the target Canada-wide Standard.

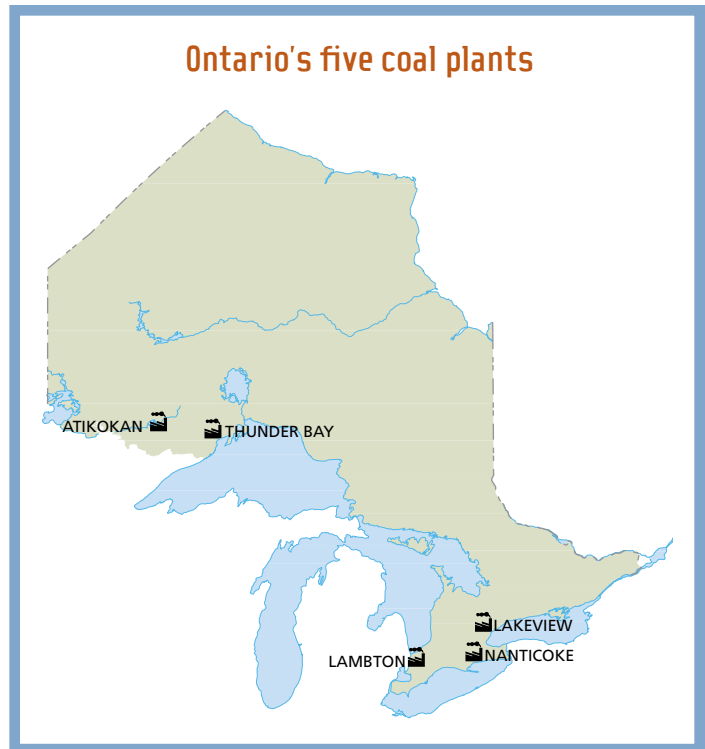
Many of these Canadians lived in Ontario, where coal plants were the single largest source of particulate matter and smog precursors.

For Lourie, the Ozone Annex and Canada-wide Standard approach of placing caps on certain pollutants represented a conventional approach to pollution prevention: Identify a substance of concern and campaign for its reduction. But in the mid-1990s, Lourie and his colleagues saw the possibility of a different approach: Attack the major source of multiple pollutants and eliminate it instead.

In 1997, the Ontario Clean Air Alliance was born. Modelled on the coalition-style approach taken by the Canadian Coalition on Acid Rain, the OCAA had a single purpose: Eliminate the use of coal to produce electricity in the interest of health and the environment. The coalition's leaders saw phasing out coal as a first major step toward moving the province to a renewable electricity future. The founding member groups of the Alliance were the Canadian Institute for Environmental Law and Policy, Sierra Club of Canada, Ontario Lung Association, Canadian Association of Physicians for the Environment, the Consumers Association of Canada (Ontario chapter), and Pollution Probe.

Later, the OCAA would expand to more than 90 member groups representing a broad array of interests, including the City of Toronto and 10 other municipalities, public health organizations, faith groups, community organizations and unions. In total, the OCAA estimated its member groups represented six million Ontarians. The broad range of groups involved mirrored the “unconventional allies” approach taken by the Coalition on Acid Rain, where “hook and bullet” hunter and angler groups had proven to be critically important allies in pushing to end the damage being done to lakes and forests by acid rain.

The organizational reins were handed to Chair Jack Gibbons and Vice-Chair Sara



Number of smog days in Ontario



Bjorkquist, and the new organization was hosted by the Canadian Institute for Environmental Law and Policy. Gibbons was a university-trained economist with years of experience in energy policy. He had served as an Ontario Energy Board (OEB) staff member and a Toronto Hydro commissioner and regularly appeared before the OEB on behalf of environmental organizations.

Bjorkquist came to the OCAA as a University of Toronto intern, but her sharp mind, solid research skills and warm personality made her an excellent

match with the more reserved Gibbons. Together, this dynamic duo would lead the early charge for the phase out and rack up some impressive early victories. Gibbons remains Chair of the OCAA to this day, while Bjorkquist moved on to working with the federal government and from there into international development work. But their mix of skills and experience proved to be ideally suited to the task at hand as the OCAA began its work in 1997.

Framing the ask

As the OCAA launched its campaign in 1997, the province was already deeply enmeshed in a debate about the Progressive Conservative government's plans for electricity sector privatization. With the Mike Harris government planning to create an "open" electricity market in Ontario, the sector was on the cusp of potentially large changes.

The OCAA started its work by pointing to the potential pollution pitfalls of electricity sector privatization in the absence of strong emission controls. At a Queen's Park press conference, it released its first major research report, *Electricity Competition and Cleaner Air*, which warned about the potential for uncapped emissions to soar in an open market where "cheap" coal would have a major cost advantage. The report was the beginnings of a debate about whether coal plants should be sold without conditions (e.g., such as a requirement for conversion to gas) or be subject to broader emission caps. It drove some public interest in the issue, but did not necessarily create a campaign objective with strong street-level appeal.

The discussion of emission caps and control orders contained in the report was not simple, although it did help influence the debate about evolving market rules and the OCAA's recommendations around the need for emission limits were eventually endorsed by the province's influential Market Design Committee. The Harris government, however, chose to ignore the need for emission caps to be part of its open-market framework and therefore laid the groundwork for a large rise in air-polluting emissions, which in turn undercut its later efforts to privatize the province's coal plants.

While the emissions caps discussion never really became a hot button public issue, perceptions changed dramatically in 1998 with the release of the Ontario Medical Association (OMA) statement that "Air pollution is a public health crisis" — a talking point suggested by OCAA media advisor David Oved.

The OMA issued a powerful paper outlining the many health impacts — from illnesses and hospital visits to deaths — associated with poor air quality and called on the province to act. But its recommendations were not easily digestible sound bites and included everything from reducing sulphur dioxide (SO₂) levels by 75% and matching U.S. limits for nitrogen oxide (NOx) to the creation of "a system benefits charge." The OMA also



did not outline specific steps for reducing emissions or address greenhouse-gas (GHG) emissions, leaving it to government to craft its own preferred responses, such as additional pollution controls.

The OCAA, however, did have a preferred solution: conversion of coal plants to natural gas as an interim step to a fully renewable electricity grid. This would address the air-polluting emissions highlighted by the OMA and slash greenhouse-gas emissions at the same time. It would also address toxins such as mercury, arsenic and lead produced by burning coal, a health issue outside the scope of the OMA's air-quality report.

Gibbons was shocked and delighted by the report's findings that total coal plant emissions could be reduced by up to 83% at the cost to the average Ontario residential consumer of a coffee and a doughnut a month.

The OCAA effectively used the OMA report as a foundation piece for its campaign by connecting the dots between the OMA's health findings and the biggest single source of the problem — Ontario's five coal plants. This coupling of cause and effect helped to circumvent one of the key weaknesses of previous campaigns: Relying on a generalized concern about air quality accompanied by abstract policy recommendations had left little real opening for strong public engagement or government action. By pointing directly to the coal plants as the major culprit for the problems the OMA was outlining, the OCAA made the issue "actionable" in a way that had never been done before.

The OCAA also demonstrated that there was a viable solution at hand. It commissioned an authoritative report on the economics of converting the coal plants to natural gas (the "Diener report") a detailed economic assessment

of the feasibility of replacing coal-fired generation with natural gas put together by a respected energy economist, Steven Diener.

OCAA Chair Jack Gibbons pulled together an unconventional group of supporters for this project that included AES Kingston Inc., Canadian Niagara Power, the Commission for Environmental Cooperation, Environment Canada, Great Lakes Power, Independent Power Producers' Society of Ontario, Municipal Electric Association and the Ontario Natural Gas Association, an early example of the OCAA's ability to work with a wide variety of organizations in the interest of advancing cleaner air. But Gibbons greatest coup may have been convincing Ontario Hydro to both fund the report and sit on an advisory committee, while making its data on coal-plant operations available to Diener.

Gibbons was shocked and delighted by the report's finding that total coal-plant emissions could be reduced by up to 83% by replacing coal with combined cycle natural gas generation at a cost to the average Ontario residential consumer of \$1.86 per month – as Gibbons framed it, the cost of a coffee and a doughnut a month to avoid the enormous health impacts previously outlined by the OMA.

With all the data assumptions made public through web posting of its underlying spreadsheets, allowing critics to test their own assumptions, there was little argument with the conclusions reached in the report. The pieces of the “coal must go” narrative, therefore, were starting to come together early in the campaign, but the emphasis on emission limits was still not quite clicking.

In November 1998, Gibbons was joined by Dr. David Suzuki at Queen's Park to announce the findings of the Diener report. Four months later, Gibbons had the backing of the OCAA's members to call for an 83% reduction in coal use, essentially replacing the three southern coal plants with gas units. Gibbons knew he had the public behind him, with polling that showed that 85% of Ontarians would be willing to pay the less than \$2 a month cost of replacing these plants with gas-fired generators, a fact he shared with Charles Birchall, Chair of the Liberal Party Platform Committee, and Dave Harvey, a Liberal advisor at Queen's Park.

The OCAA's and the OMA's work paid off on April 15, 1999 when Liberal Leader McGuinty released his party's environmental platform for the upcoming provincial election. Specifically he promised to convert the province's five coal-burning plants to cleaner burning natural gas. According to the party's press release: “Air quality is one area of the environment where Liberals plan to make major improvements. According to the Ontario Medical Association, 1,800 premature deaths are caused by air pollution each year.”³ The Liberals had actually leapfrogged the OCAA in calling for a conversion of all five plants (as opposed to the 83% phase out modelled in the Diener report), but equally importantly, McGuinty did not set a firm date for ending coal burning.

The NDP had actually beaten the Liberals to the punch by calling for the government to adopt the emission limits proposed by the OCAA — an 83% reduction in SO₂, a 77% reduction in NO_x and a 51% reduction in greenhouse gases earlier. But the party had not linked this reduction to a complete phase out of the five coal plants.

While cleaning up coal plants was clearly popular, the discussion of a slew of percentages was not proving to be the best way to get the message across. “It wasn't something you could put on a t-shirt,” Harvey laughs.



Lakeview coal plant in Mississauga.

To Michael Perley, who co-chaired the Canadian Coalition on Acid Rain and now works on health advocacy issues for the Ontario Medical Association, this is an example of the problem of not having a clear, measurable and relatively simple ask. When it came to measurability, he adds, it was hard to beat “Are the coal plants operating or not?”

This simple framing also helped to effectively address proposed solutions like adding scrubbers to the plants. “You could then simply say, ‘Is this solution as good as

shutting down or converting those plants [to gas]?’ That made it much harder to make a case for second-rate solutions,” Perley notes.

Dave Harvey puts a bit of a different spin on the issue. Sometimes, he says, a large and somewhat abstract issue like climate change or air pollution needs to be broken down into its component parts. For example, the Liberal party could have talked about the need to reform urban planning rules to deal with the undesirable impacts of urban sprawl. But it was more effective to talk about creating a Greenbelt around Toronto, something more tangible, more positive, and easier for the general voter to embrace than *Planning Act* reform.

That notion is borne out by the pre-OCAA experience of the “Ontario Carbon Dioxide Collaborative”, a mid-’90s effort by a 37-member multi-stakeholder advisory committee to frame a CO₂ reduction strategy for Ontario. The group produced “a very pragmatic and cost-effective strategy,” Gibbons recalls, “but it had absolutely no impact on public policy.”

But even with the target of eliminating coal use as a key objective, the OCAA did not feel comfortable in immediately calling for a full coal phase out in 1999, mostly because the full cost picture was still missing (Diener having modelled only a partial replacement).

Instead, in 2000 the OCAA raised the alarm about a potentially big ramp up in use of the underused Lakeview coal plant on Toronto's doorstep post-privatization, thereby making an abstract threat suddenly very real for millions of Ontarians. The OCAA pointed out that despite operating at only 16% of its capacity, Lakeview was the No. 1 air polluter in the Greater Toronto Area (GTA). In the absence of emission caps, Lakeview's impact could therefore become as much as five times worse.


The prospect of plants like Lakeview being fired up to full capacity by new private owners drew public attention to a major potential flaw in the PC government's already controversial plan to privatize electricity generation, but, more importantly, further fuelled public awareness of the air-quality impacts of the coal plants themselves.

But even with support building for a full coal shutdown, there was recognition that this transition away from coal wasn't going to happen immediately. It simply wasn't reasonable to expect change on this scale to happen instantly, Bruce Lourie says. "It needed to be framed as a phase out and a transition. This was not something that could be accomplished overnight."

Partly, this was just the practical reality of replacing a large chunk of the province's electricity supply. But Lourie adds that with change of this scale, "it is better to take your time and do it right and avoid stirring up opposition," such as has happened with the rapid implementation of the *Green Energy and Green Economy Act*, he believes.

In fact, the OCAA waited until 2000, when consultants Hagler Bailly Canada reported to Ontario Power Generation (OPG) that coal could be phased out by 2012 at no incremental cost, to adopt a goal of a full coal phase out by 2012. In 2001, it revised its target date to 2010 based on further cost and feasibility analysis.

On September 9, 2002 — a classically hot and smoggy day (in fact, the record-setting 25th smog alert day of the year) — Liberal Leader Dalton McGuinty boldly promised at a major news conference at the Ontario Legislature that he would phase out all of Ontario's dirty coal-fired power plants by 2007. McGuinty said that he would replace coal with a combination of energy conservation, renewable energy, natural gas-fired generating stations and nuclear power. At the end of the news conference after the TV cameras were turned off and the reporters were filing out of the Queen's Park media studio, McGuinty turned to Gibbons and said: "Jack, make sure that I keep my promise." Clearly, McGuinty understood early on how challenging it was going to be to keep this commitment.



On Sept. 9, 2002 – a hot and smoggy day – McGuinty boldly promised at a news conference that he would phase out all of Ontario's coal-fired power plants by 2007.

“The media got it immediately,” Harvey recalls. Of course, he adds, by that point “A lot of work had been done to make it a credible problem with a credible solution — and a problem with a body count.”

The next day Howard Hampton, the Leader of the NDP, endorsed McGuinty’s 2007 coal phase out deadline. As a consequence there was now intense media and public pressure on Premier Ernie Eves to also endorse a coal phase out. On September 18th, nine days after McGuinty’s news conference, the Eves government committed to a complete coal phase out by 2015.

The OCAA now had the job of holding the parties to their promises and, in the case of the Tories, pushing for a more ambitious commitment. It had the public and all three parties onside, but there was an enormous amount of work still to be done to move from words to action.

Demonizing coal

In the 1990s, few Ontarians had any idea how reliant the province was on coal to keep the lights on. Anyone who gave the source of their electricity much thought probably had visions of Niagara Falls and clean water power. But the truth was that from the 1970s onwards, Ontario had made a big bet on nuclear, which by the 1990s was supplying the lion's share of the province's electricity, that is until units at Bruce and Pickering proved to be highly unreliable. While hugely expensive repairs got underway at both plants, the province ramped up coal to fill the gap. It also turned to coal to meet rising peak power demand as more and more Ontarians added air conditioning to their homes.

As Ted Boadway of the Ontario Medical Association puts it, when it came to the source of their electricity, Ontarians “didn’t know and didn’t need to know — except this time they did.” Ontarians needed to be informed about the single biggest contributor to their air-quality problems so they would be in a position to support a fairly radical change in approach.

The OCAA used this problem to its advantage with its “Ontario’s Dirty Secret: Five coal plants add up to a big smog problem” messaging. The idea of a “secret” that was being kept from citizens added urgency to the revelation of the impact of coal on air quality and, indeed, Boadway says, OPG was far from forthcoming about what exactly was coming out of those stacks. In fact, the company later went to great lengths to obfuscate the issue.

The OCAA used powerful imagery — billowing smokestacks, children using puffers, and lumps of coal — to get its message across. The group pulled no punches, associating “dirty” with “coal” in the public’s mind, to the point where consultants hired by the Power Workers’ Union to devise a strategy to defend coal would complain that it was next to impossible to break the “dirty coal” meme established by the OCAA.



The OCAA also painted coal as an outdated and backwards solution to meeting our energy needs, and appealed to a sense of pride about Ontario's status as an advanced economy that shouldn't be reliant on 19th century technology (a theme later echoed by Dalton McGuinty).



The group distributed tens of thousands of pamphlets through publications such as *Toronto Life*, local newspapers and door-to-door, ran radio ads, posted billboards at key intersections in downtown Toronto, wrote op-eds for papers across the province and generally combined paid and earned media to draw attention to the impacts of coal burning. It also built a large e-mail list and used it frequently to cement its messaging at a time when the internet was still in early adolescence.

During the summer of 2002, the OCAA put on a big push to draw attention to Nanticoke's status as the province's No. 1 air polluter, running close to 150 radio ads on Toronto's CFRB (run by an additional six radio stations across Ontario as public service announcements) and erecting billboards, including one at Yonge and McPherson near Premier Eves' Rosedale home.

It also tailored its message to specific audiences. In the north, where smog was seen as a southern problem, it emphasized the role of coal plants in producing acid rain and mercury and the effect of these emissions on lakes, rivers, forests and fish. It produced pamphlets and factsheets specifically tailored to the region, pointing out that it had plentiful alternatives, particularly water power. Similarly, it produced separate factsheets and pamphlets focusing on the impacts of the Lambton plant on air quality and toxics in southwestern Ontario and distributed these in and around Sarnia.

A big early focus, however, was the Lakeview coal plant on Toronto's doorstep. Having this huge polluter sitting at the heart of the province's densest urban region was a campaign gift. Thousands could see the Lakeview stacks from the highways flowing in and out of the south end of Toronto. For residents of Mississauga and South Etobicoke, the issue was personal — this plant was the ultimate bad neighbour.

The issue really hit the headlines when Jack Gibbons was joined by then Mississauga Mayor Hazel McCallion in front of Lakeview for a press conference in March 2000 calling for the plant to be converted to natural gas. The popular Mississauga mayor was hugely influential and few at Queen's Park from any party wanted to cross swords with her. McCallion gave the call for an end to coal use instant cred-

ibility. “She was certainly not seen as a nutty environmentalist,” Lourie notes, “and she genuinely understood the issue.”

McCallion, as usual, pulled no punches stating “clean air is very important to economic development, as well as the quality of life of our citizens.” She then squarely put the ball in the province’s court, adding “This is an opportunity for the Ontario government to show leadership. The government must show leadership.”

McCallion had significant backroom influence as well as her powerful public presence, adds Lourie, having served on the Harris government’s electricity transition committee and just generally being active and influential in Conservative circles.

McCallion’s concern was piqued by reports from Gibbons, based on a conversation with OPG Chief Executive Officer Ron Osborne, that OPG was ready to sell Lakeview with no emission conditions attached. On March 6, 2000, McCallion wrote to Osborne stating “Mr. Gibbons has advised me by telephone that he has spoken to you regarding this issue and he has indicated to me that you are not willing to place any conditions on the sale. I trust this information is incorrect and I look forward to your response.”⁴



Jack Gibbons and Mississauga Mayor Hazel McCallion in front of the Lakeview coal plant calling for it to be converted to natural gas (March 2000).

Toronto Star

Clearly, “Hurricane” Hazel did not receive the response she was looking for, as she chose to join Gibbons in a public press conference three weeks later to demand Lakeview’s conversion to gas as a condition of any sale. A large photo in the *Toronto Star* of Gibbons and McCallion in front of Lakeview’s four giant smokestacks drove the message home for thousands of GTA residents and instantly cemented the OCAA’s credibility. For her part, McCallion assured Gibbons that she would fight relentlessly for Lakeview’s conversion.

Local Progressive Conservative MPPs Margaret Marland and Morley Kells echoed the call to convert Lakeview. Meanwhile, Toronto Councillor Jack Layton managed to also convince Toronto Mayor Mel Lastman to move a motion endorsing a coal phase out at Toronto City Council. Layton happily seconded the motion. Getting rid of coal was quickly becoming a bipartisan issue as public concern over coal use grew.

The Harris government, however, initially refused to budge. In response to McCallion’s call for provincial action, a spokesman for Energy Minister Jim Wilson stated that open market competition was “the best guarantee of cleaner electricity.”⁵

However, Premier Harris finally cracked in response to relentless questioning by Opposition Leader Dalton McGuinty in the Ontario Legislature that highlighted coal's huge pollution footprint and the huge holes in the government's privatization plans.

On May 17, 2000, McGuinty's first question for the Premier was about Lakeview.²⁷ McGuinty told Harris that he had in his hand a document filed by Ontario Power Generation with the Ontario Securities Commission that said that OPG's president could earn a bonus of up to \$843,500 by increasing OPG's profits. McGuinty then noted that OPG would make more money if Lakeview was sold as a coal-burning plant and that it would make less money if it was sold subject to the condition that it must be converted to natural gas. McGuinty stated that this meant that the president of OPG had a strong

personal incentive to keep coal burning at Lakeview.

McGuinty then asked Harris if he had approved of this incentive plan.

The Premier replied: "Yes, Mr. Speaker."

Dalton McGuinty quickly followed up: "I can't believe you understood what I said... If this plant is sold as is, the poisonous air pollution emanating from Lakeview would be like adding a million cars to the GTA.... I will ask you one more time, Premier do you approve of this perverse incentive package?"

Once again, the Premier replied: "Yes, Mr. Speaker."

Mr. McGuinty responded again: "Let's take a look at your record now, Premier. We are the second-worst polluter today in North America. Doctors tell us that air pollution is killing 1,800 Ontarians every year. We also know that air pollution costs our health system over \$1 billion every

year.... Premier, tell me you misspoke the first two times. You've had an opportunity to reconsider...."

Premier Harris: "So far in the first two questions I've said yes and yes. It's pretty hard to say I misspoke myself. I'm very supportive of the incentive plan that we have put before our senior people in our bureaucracy and the incentive with the CEO of Ontario Hydro...."

McGuinty to Premier Harris:
"If this plant is sold as is, the poisonous air pollution emanating from Lakeview would be like adding a million cars to the GTA.... do you approve of this perverse incentive package?" Premier: "Yes."

But then the Premier added an unexpected, but critically important caveat: “Finally, it is not up to Ontario Hydro to give us environmental conditions; it’s up to the Minister of the Environment, who said there will be no sale of the Lakeview plant as a coal-burning facility. That’s not a Hydro decision.”

This exchange was precipitated by OCAA media consultant David Oved, who had suggested this line of questioning to McGuinty. The results were important for a number of reasons.

First, Environment Minister Dan Newman was not on record as having made the promise that Premier Harris attributed to him. As a result, many in the Legislature were dumbfounded by Harris’ bombshell announcement. Nevertheless, within a few hours, Minister Newman issued a press release that stated that the government had imposed a moratorium on the sale of all coal-fired generating facilities.⁶

Second, no buyer ever emerged that was willing to purchase any of Ontario’s coal plants subject to the condition that they be converted to gas.

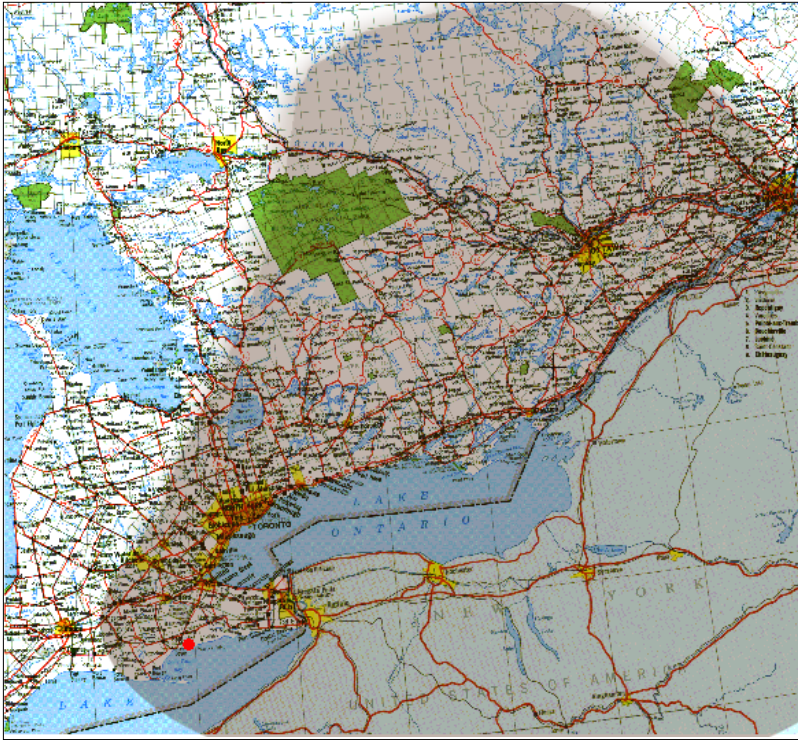
Third, in a follow-up to the Premier’s statement, on March 26, 2001, Ontario’s new Minister of Environment, Elizabeth Witmer, announced that she would issue a legally binding regulation requiring the phase out of coal burning at Lakeview by April 2005.

It was now one down and four to go for OCAA’s campaign. The work to demonize coal had succeeded with Lakeview on Toronto’s doorstep, but now had to be extended to the other four plants, including the giant Nanticoke Generating Station on the shores of Lake Erie.

Bruce Lourie had stumbled across a key fact while browsing through the library of giant California utility Pacific Gas & Electric: Nanticoke was the largest coal-fired plant in North America. Combined with the OCAA’s own research, which found that Nanticoke’s emissions made it the biggest polluter in Canada, Nanticoke became an icon for the heavy footprint of coal in Ontario.

A simple Ontario road map with the emissions plume for Nanticoke Photoshopped on top became one of the campaign’s most powerful images. In one frame it made it clear just how far reaching — and difficult to escape — Nanticoke’s impact was.

Map of the primary impact area for Nanticoke's emissions



Feeding public concern about coal was a perception that problems like childhood asthma were growing almost exponentially. As Michael Perley points out, for the largest provincial source of air-polluting emissions — transportation — air-pollution control technology had actually improved significantly. The problem was that there were now many more cars and trucks on the road than in the 1960s and '70s. And, of course, coal use had soared to fill the gap left by shut-down nuclear plants.

But it wasn't just smog that led to the demonization of coal. The OCAA meticulously documented the full range of pollutants flowing from the coal plants through airborne emissions and even ash disposal. In particular, it highlighted the leading contribution of coal

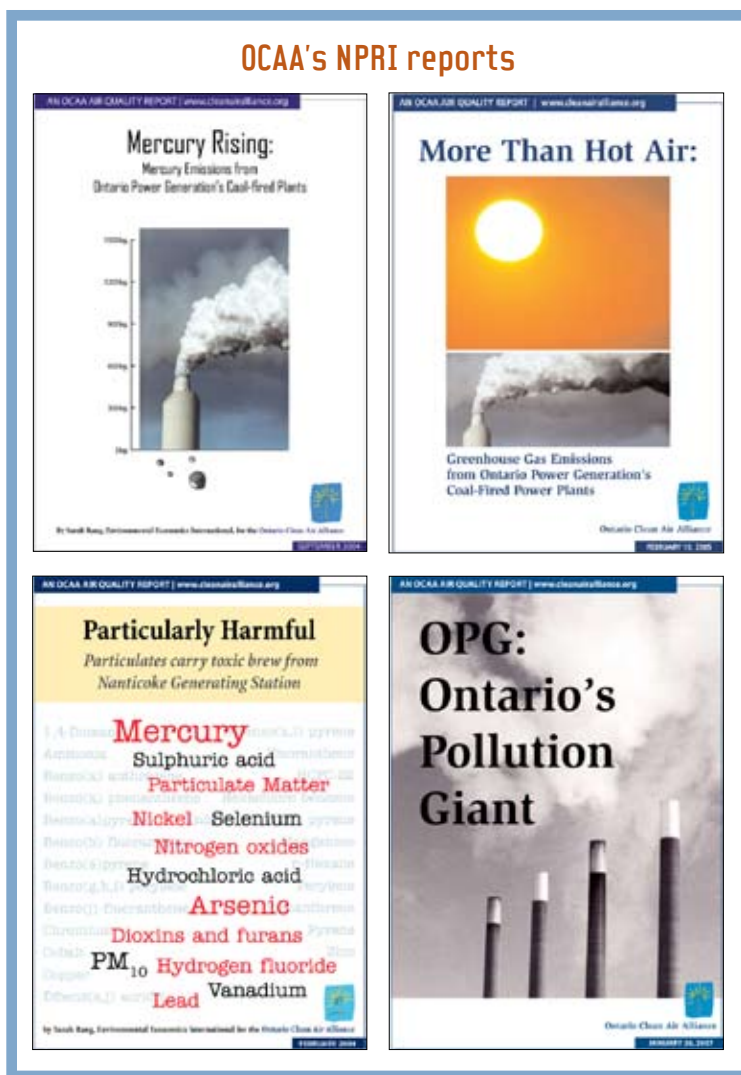
plants to dangerous mercury emissions, which no scrubber technology could effectively address. Mercury, of course, had very concerning health impacts: dangerous to the fetus and damaging to children's brain development. The fact that mercury was a "neurotoxin" was certainly alarming to the average Ontarian.

OCAA's reporting on coal-plant emissions was made easier by the development of the Pollutionwatch tool by a coalition of environmental organizations. Pollutionwatch put National Pollution Release Inventory (NPRI) data at the fingertips of researchers, such as the OCAA's Sarah Rang, for the first time. In report after report — including *OPG: Ontario's Pollution Giant* and *Mercury Rising* — indisputable NPRI data was used to document the coal plants' huge pollution impact. The OCAA released a steady stream of these pollution impact reports and earned ongoing media coverage that helped keep the coal phase out commitment in the public eye while cementing coal's place as a top concern for Ontarians.

With coal increasingly under attack, it did not help its cause that Ontario Power Generation was blowing past emission limits. In 1999, OPG admitted it would exceed its cap for nitrogen oxide emissions by 33% in 2000.⁷ The next year, it was forced to acknowledge that the coal plants were exceeding its voluntary greenhouse-gas emission limits by 50%, severely eroding OPG claims of good corporate citizenship.⁸

However, that didn't stop OPG from running ads in major papers claiming that its airborne emissions had fallen by 60% over the last 16 years.^{8b} The move backfired when the OCAA filed a false advertising complaint with the federal Competition Bureau. OPG eventually agreed to drop the claim from its public communications (while continuing to defend its statements), a concession that was reported under a banner headline in the *Toronto Star* reading "OPG agrees pollution ads may be misinterpreted." While it took months for the Competition Bureau to actually rule on the matter, the OCAA successfully used OPG's misleading statements to continue to draw attention to the issue and the need for a real solution, not empty promises.

So despite OPG's attempts to present its aging coal plants as benign, calls grew for their conversion to gas, with everyone from federal Environment Minister David Anderson to New York State Attorney General Eliot Spitzer demanding the province clean up its act. Spitzer noted in an October 2000 letter to Anderson that none of Ontario's coal plants would be able to meet American emission standards and added that he was "greatly disappointed" that Ontario was not planning to convert its coal plants to natural gas.⁹





With a media release titled “Air pollution cost Ontario more than \$1 billion a year, OMA report says”... the myth that coal was a source of “cheap power” was now destroyed by the most credible possible source – your doctor.

But for the public, there is little question that it was the opinion of the “white coats” that hit closest to home: The Ontario Medical Association followed up on its health impacts study with an equally devastating assessment of the actual dollars-and-cents health costs of air pollution. With a media release titled “Air pollution cost Ontario more than \$1 billion a year, OMA report says” the association found itself run off its feet with media interview requests, Boadway recalls. The myth that coal was a source of “cheap power” was now destroyed by the most credible possible source — your doctor.

The release of the OMA’s air-pollution health costs study and endorsement of the OCAA’s goals by then Toronto Medical Officer of Health Dr. Sheela Basrur were enough for the public to be convinced that coal had to go. As the province turned the corner into the 21st century, Ontarians were convinced that coal plants were a major problem — one well worth spending a few extra dollars a month to address.

It's all about health

Health and the economy: These are the issues that resonant with people, says Bruce Lourie, who notes that “health and economy are the real public policy drivers.” A sense of personal well being and family security is always going to trump somewhat abstract concerns like climate change, he believes. And this was certainly the case for the coal phase out campaign.

The importance of the studies and statements put out by the Ontario Medical Association is hard to overstate. As OCAA Chair Jack Gibbons puts it “no politician dared to argue with doctors about the impact of air pollution on human health.”

It also helped that the campaign to stop acid rain had already created fertile ground for the health argument by demonstrating a “public understanding that we could not have economic activity at any price — that we needed to factor in environmental and health costs,” says Michael Perley.

As much as focusing on the health impacts of coal seems like common sense today, it was controversial at the time, Lourie states. In particular, some people questioned why environmental organizations would focus on a “health” issue, he says. “Some said environmental organizations should focus exclusively on environmental impacts,” things like acid rain or climate change, he notes. Even as the Ontario campaign picked up momentum, many U.S. non-governmental organizations remained highly skeptical of using a health focus to battle coal, he adds.

For his part, Gibbons says the criticism he received focused more on the OCAA’s call for replacement of coal by natural gas and the fact that its campaign was focused exclusively on coal plants and not other air-pollution sources such as cars. But while Gibbons is the first to acknowledge that conversion to gas “was a less than perfect solution,” he felt it was the most viable transition option for moving Ontario toward a 100% renewable electricity grid. And it made sense for the general public, who perceived it as a credible and responsible option. Focusing exclusively on coal, meanwhile, provided an easy-to-grasp message that had been lacking from earlier efforts to combat air pollution and climate change.



Indeed, in the 1990s, Ontarians had little more than an “unfocused” generalized concern about air quality, says the OMA’s Ted Boadway: “They knew it was bad, but they didn’t know why.” For his part, Gibbons notes that people in Southern Ontario had long lived with poor air quality. What made it different this time was OCAA’s effective work to identify a clear villain — five dirty coal plants — and a viable solution.

For the OMA, there were a number of factors that played into deciding to wade into this issue. Boadway is careful to explain that the OMA is concerned about health, and not just health care, and he notes that there was plenty of evidence available that poor air quality was a direct threat to health.

That evidence, however, was mostly buried in scientific literature and largely inaccessible to the general public. Boadway felt there was a clear role for the OMA in addressing the issue. He points to three factors that contributed to this decision:

1. It was an issue where hearing from your doctor made sense;
2. The OMA could have a significant impact as the issue was far from being effectively addressed; and
3. There were viable solutions.

The fourth factor was the availability of funding from the Laidlaw Foundation to assist the OMA with its work on quantifying the health and financial impacts of poor air quality. “We couldn’t have taken on something this large with just existing resources,” Boadway notes.

Boadway and the OMA set out to make the issue of air quality “real” to people. When the process started, he says, “there was a general sense of unease, but it had not translated into a sense of ‘me and mine’.” The OMA’s first job was to make the health impacts story much more accessible and to translate it into the actual on-the-ground health impacts in Ontario.

By quantifying the illnesses, asthma attacks, hospital visits and premature deaths caused by breathing bad air, the OMA brought these impacts home to people, says Michael Perley. “Like with the acid rain campaign, where we had solid scientific evidence from the Experimental Lakes Area right here in Ontario, the OMA work was relevant because much of the evidence was Ontario-based.” It also made a big difference that the source of this information was Ontario’s top medical association. “No one would have believed that death count if it had come from environmentalists,” he adds.


Boadway is also quick to point out that although the study itself relied on computer modelling, “we were modelling something real — people are sick and dying.” The flip side, he notes, is that “if the story is real that people are being hurt and dying, then you must be able to put a number on it. This is not a hypothetical problem.”

But Boadway adds that the impact of the OMA’s initial report wasn’t just serendipitous. He and the OMA staff had spent months working on a rollout strategy for the report and preparing for push back on their messaging. “You have to understand that some sort of fracas will likely ensue. Your opponents are not dummies. In fact, they are often clever and well funded,” he points out.

It was also Boadway’s belief that “the story had to be told in chapters.” Rather than overwhelming the public with every facet of the issue, Boadway wanted to build a narrative about what bad air was costing the province. “The idea was to prepare the public for the next installment by building attention and interest” with the initial reporting on health impacts. “People aren’t stupid, but their attention may not be tuned to your issue,” he adds.

Part of the OMA’s rollout strategy was to make the data and assumptions used in its reports widely available, both so that critics could poke and prod in a largely vain attempt to find weaknesses and so allies could amplify the message. For its second study, the OMA actually developed a custom software program that it made freely available to anyone who wanted to test its interpretations or replicate its work in other jurisdictions. Boadway notes that Canada’s universal Medicare system played a role in making this project a success by providing relatively easy access to uniform data. “This project would have been much more difficult to do in the United States,” he says.

The OCAA then used the OMA’s numbers to paint coal plants as a prime culprit. While the OMA itself had made recommendations on reducing pollutants, it had not specifically called for a phase out of coal power. But if reporters asked whether the OCAA’s interpretation of the results and their implications made sense, Boadway affirmed that the OCAA was indeed painting an accurate picture.



By quantifying the illnesses, asthma attacks, hospital visits and premature deaths caused by breathing bad air, the OMA brought these impacts home to people.

Without the OCAA's involvement however, the OMA's work, while raising public alarm may not have generated as strong a demand for action. But because the OCAA had made the link between the OMA's findings and coal's oversized contribution to the problem — while also outlining a solution — the OMA's work had much greater impact.

One reason critics found so little to dispute in the OMA's findings was that Boadway had been quite careful to use conservative assumptions in the calculations. "My rule is to be conservative – to always underestimate impacts and make very careful assumptions. If the result is still scary, you have a story to put out," Boadway explains. "My own belief," he adds, "is that the numbers were bigger than what we put out."



The next chapter in the OMA's narrative was on the health costs of air pollution. This was something that had never been done in Ontario before, but Boadway felt it was needed to counter the view that addressing issues like coal burning and sulphur in fuel (the other major focus of the OMA's air-quality work) was going to come at a high cost.

Although the OCAA's Diener report had shown that the average monthly bill increase from a coal phase out would be small, it was still a very ambitious proposal that would have capital costs in the billions of dollars and meant turning our backs on a source of "cheap" — albeit dirty — power.

With real and significant costs involved in shifting away from coal, politicians needed to see both sides of the story. "We needed to balance the picture and we thought we could do that," Boadway explains.

The OMA's thorough examination of the health costs of illnesses caused by bad air produced some shocking numbers, for everything from health-care system costs to lost productivity. One key finding of the report was that the province's existing smog plan would lead to only a marginal improvement in air quality and an equally marginal reduction in these health costs of just more than 10%.

The statement that "air pollution costs Ontario more than \$1 billion a year" became a campaign mantra and quickly changed many perceptions about the "costs" of acting to clean up coal. In fact, the OMA report actually found that air pollution was costing Ontario \$10 billion a year when loss of life and pain and suffering were included.


The OMA's portrayal of the growing health impacts of coal were echoed by the findings of Toronto Public Health (TPH), which reported in 1999 that coal-plant emissions had risen sharply in just two years. TPH's own series of reports amplified the work of the OMA in pointing to the real health costs of air pollution for the province's largest urban area and echoed the OCAA's call for a phase out of coal as the preferred solution.

Meanwhile, the OCAA filled out the details of the health picture with its series of reports using NPRI and other emissions data. These reports covered everything from mercury and other toxics (cadmium, lead, arsenic) and particulate matter to greenhouse gases. They consistently showed that coal plants were not just leading sources for every one of these problematic substances but that, in many cases, coal-plant emissions were getting worse while other sectors were cleaning up their act. This was particularly true for mercury, where emissions had fallen dramatically for every industrial sector except coal.

The OCAA reports helped to paint a picture of the huge impact of coal on people's health in Ontario by using publicly available data to explain in detail the potential health impacts of the many different substances being emitted by the coal plants, from heart disease and asthma attacks to impaired brain development. Again, given that the information was all drawn from official sources, it was hard for opponents to argue that these impacts were being exaggerated or misinterpreted.

The OCAA report *Particularly Harmful*, for example, noted the growing concern about the effects of the small particulate matter being emitted from the coal plants, something the provincial government had also acknowledged when it signed onto the Canada Wide Standard for Particulate Matter and Ozone in 2000. As Sara Bjorkquist notes, the standard was not, in fact, in any way legally binding on the province, but "It created an expectation and was a first step for moving things along."

The cataloguing of the health impacts of coal not only helped to convince both Ontario citizens and political leaders that the province had to act, it largely deflated the recurring argument that the province's air-quality problems were largely imported from the Ohio Valley. Elizabeth Witmer, environment minister in the Mike Harris government from 2001 to 2002, states for example that "as we moved forward to clean up the air, we



The OCAA reports filled out the details of the potential health impacts of the many different substances being emitted by the coal plants, from heart disease and asthma attacks to impaired brain development.

were well aware that 50% of smog came from across the border. But we could at least move forward to clean up our own air.”

Michael Perley says industry and government used a similar argument during the campaign to curb acid rain. “They were much happier to blame the U.S. than to install scrubbers here,” he notes. But when it came to coal, it was clear that Ontario’s hands were far from clean. And with states like New York and Connecticut complaining that they were impacted just as much by smog from Ontario as from the Ohio Valley¹⁰, the province simply couldn’t just play the blame game.

In fact, for OPG, it was clear that the public was no longer going to accept uncontrolled — and growing — coal-plant emissions. The utility’s response was to propose a multi-million dollar plan to add scrubbers to coal plants as its response to the growing demands to address the health impacts of coal.

Ontario Hydro had successfully met the challenge from the acid rain campaign in the 1980s by improving its pollution controls, so it was not surprising that the utility thought it could turn back the tide on a coal phase out by agreeing to some pollution-control improvements, including installing selective catalytic reduction (SCRs) on two of Nanticoke’s eight boilers and two of Lambton’s four boilers, along with installing low NOx boilers on two of Lakeview’s four units.

The problem, however, was that these measures would have zero impact on the plant’s greenhouse-gas emissions or on 29 other coal-plant pollutants, including six cancer-causing substances. And even for air pollutants such as SO₂, NOx and particulates, the scrubbers were a far less effective solution than conversion or replacement by gas.

Unfortunately, OPG just couldn’t seem to shake the habit of selective reporting and issued a news release claiming that plants equipped with SCRs would be almost as clean as plants burning natural gas. It then went further, claiming that “to replace the production of Nanticoke with natural gas would be tremendously expensive for consumers with minimal environmental benefits.”^{10b}


After the OCAA once again complained to the Competition Bureau about OPG’s hugely misleading statements, the utility withdrew the claim, albeit almost two years later after the Competition Bureau reminded the utility that it had agreed in the resolution of the earlier false advertising complaint that its communications would be “accurate and fair in both their specific content and general impression.”

Once again, the utility ended up earning itself more bad press instead of goodwill, with headlines in papers across the province reporting “OPG agrees to stop running misleading ads” and “Ontario Power zapped for misleading ads.”

The OCAA, obviously, was not terribly impressed with OPG’s scrubber solution, pointing out that the scrubbers would actually make the plant’s greenhouse-gas emissions worse (by reducing their efficiency). The OCAA neatly summed up the deficiencies in OPG’s plan by pointing out that it would reduce *total* coal-plant emissions by a fraction of 1%. With both New York Attorney General Eliot Spitzer and Toronto Medical Officer of Health Dr. Sheela Basrur siding with the OCAA, OPG had a hard time winning plaudits for its \$250 million plan. So while OPG eventually proceeded with its plan to install SCRs and low NOx burners, its actions did little to reduce the pressure for a full phase out as there was now a widespread understanding of the minimal impact these measures would have.

In fact, the OCAA quickly found some important allies to join it in protesting this ineffective solution, including then Mayor Lorraine Bergstrand of Haldimand County (where Nanticoke was located) and Councillor Sam Merulla from downwind Hamilton. Together, they demanded that the Government of Ontario and federal Environment Minister David Anderson use their powers to require an environmental assessment of OPG’s plans. Eventually, 16 municipalities would endorse the OCAA’s call for an environmental assessment. They were also joined by Dr. Sheela Basrur and the states of New York and Connecticut in asking for a review of OPG’s plan to spend millions to reduce just a fraction of the pollutants coming from its coal plants.

Anderson, however, chose not to act, stating in a letter to the OCAA “Our preferred option is to collaborate with the provincial authorities in dealing with this issue” but he did make clear he expected real emissions reduction action from the province, adding “We are continuing discussions with Ontario to ensure that the 39 kilotonne [NOx] cap is met. If needed, I will consider using the powers of the CEPA [*Canadian Environmental Protection Act*] to honour this commitment.”¹¹



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Anderson says he was far from bluffing about using CEPA. “I was ready to invoke the ‘occupation of ground’ rationale. If Ontario wouldn’t act, we would,” he explains.

So, in the end, OPG’s scrubber solution ended up making the case for a full coal phase out even more compelling by demonstrating the inadequacy of end-of-pipe solutions. In fact, when the idea of using more scrubbers to address coal-plant emissions was raised by then PC Leader John Tory in 2007, the energy minister of the day, Dwight Duncan,

immediately dismissed the idea as “a scrubber sideshow,” saying that a full phase out would be a much more effective solution (despite the fact that OPG had by then been spending tens of millions of dollars retrofitting a handful of coal plant units).

“Coming from Health, says Witmer, “I was very aware of the health impacts of smog, including hospital admissions and development of chronic disease.” Witmer adds she came to the decision to support a full phase out “based on what was best for quality of life.”

For Elizabeth Witmer, who served as both a health and environment minister in the Mike Harris cabinet, the information about the health impacts of coal provided important context for a growing focus on preventative health care. “Coming from Health, I was very aware of the health impacts of smog, including hospital admissions and development of chronic diseases,” she says. Witmer adds she came to the decision to support a full phase out “based on what was best for quality of life – which is why we also introduced Drive Clean and smog patrols.”

With a bulletproof case made for the link between coal burning, bad air and human-health impacts, the debate had shifted from whether coal burning was really at fault for the province’s air-quality problems to what the best solution was for reducing its clearly enormous impacts.

Pricing the solution

When it came to framing its preferred solution for dealing with the air-quality impacts of coal, the OCAA faced two challenges: First to convince political leaders and citizens that its preferred solution — a full phase out — was the most effective way to deal with the problem; and second to convince them that it was an affordable solution.

The irony of the second part was the long-ingrained culture at OPG and its predecessor, Ontario Hydro, to always favour top-dollar solutions. It wasn't by chance that Ontario had both North America's largest coal plant (Nanticoke) and one of the world's largest nuclear plants (Bruce). But the OCAA knew that despite OPG's willingness to spend hundreds of millions of dollars on stop-gap solutions like scrubbers, its own preferred solution would have to be costed — and defended — to the penny.

The work started right away with the *Emissions Reduction Study for the Ontario Clean Air Alliance* in 1998 (the Diener report). The study found that an 83% reduction in emissions could be achieved at a low cost by replacing some coal plants with combined cycle natural gas generation.

As well as having the report prepared by an independent consultant, the OCAA ensured that Ontario Hydro was a member of the report advisory committee and provided funding for its development, which made it very difficult for the utility to question the report's conclusions. This may have been one of the advantages of dealing with a public utility, which, at the time, saw a need to reflect the public interest as well as its own, and was therefore willing to support even potentially critical reviews.

The OCAA's statement that the report showed that cleaner air could be had for the cost of a cup of coffee and a doughnut a month made headlines in all the major papers. It helped that the messenger for this statement — OCAA Chair Jack Gibbons, who came up with the line while waiting in line at Tim Hortons — took pains to portray himself as an economist rather than an environmentalist.

A suit-and-tie wearing bespectacled numbers guy comfortable with the jargon of net present value and conversant with the latest Henry Hub spot price for natural gas, Gibbons made the message highly credible. No one tangled with Gibbons on the numbers and won.



Lourie notes that Gibbons' knowledge from years of Ontario Energy Board work and from his time serving as a Toronto Hydro commissioner made him "highly credible and somewhat feared" by politicians and bureaucrats. "I remember the politicians would ask me 'What will Jack think?' when they were working on policies," he chuckles.

Not that there was a strong opposition case to be made on cost: OPG's own study, conducted by Hagler Bailly Canada in 2000,¹² found that the coal plants could be phased out by 2012 without raising electricity rates.

But with gas prices rising in 2000, doubts were raised that the OCAA's cost estimates were still accurate. In response, the OCAA once again commissioned Steven Diener to look at the costs of replacing the giant Nanticoke coal plant with gas-fired generation, but this time with a gas price that was double the rate used in the original report. Once again, OCAA had the full cooperation of Ontario Power Generation and once again, the results found that conversion to gas was economically feasible. It also showed that replacing Nanticoke with natural gas would get the province almost one-third of the way to its Kyoto greenhouse-gas reduction targets in a single step — the equivalent of taking 3.5 million cars off the road.

With the two Diener reports and Hagler Bailly's findings in hand, the OCAA decided to set some firm deadlines for ending coal use. It recommended that Nanticoke be converted to gas in 2005, Lambton be converted in 2007 and Atikokan and Thunder Bay be converted in 2010.

Of course, there were naysayers who said that it would be highly damaging to the province's economy to turn its back on cheap coal. Chief among these was the Association of Major Power Consumers of Ontario (AMPCO), a group of large industrial power users that was highly skeptical of the idea of phasing out coal. In 2005, even with a firm government commitment to phasing out coal and the OCAA's and OPG's financial impact studies, AMPCO was claiming that phasing out coal would drive up electricity costs by \$3 billion a year.¹³


While AMPCO worked the back rooms and tried to sell opinion leaders on its view that a coal phase out would be reckless, the OCAA decided to see if the association's members were willing to stand by its position in public, given what was now known about the health impacts of coal burning.

OCAA wrote to many of the highest profile companies that belonged to AMPCO and asked them bluntly if they supported an end to coal burning. Companies sensitive to their public profiles, such as Molson and Cascade Paper, quickly replied that they fully supported action to improve air quality in Ontario. “AMPCO does not represent the views of Molson,” the brewer stated.

Later, the OCAA asked its followers to offer to take executives from AMPCO member companies to the movies to catch a screening of Al Gore’s just released climate change documentary “An Inconvenient Truth.” It was a simple way of drawing attention to the fact that AMPCO’s preferred plan would lead to a huge increase in greenhouse-gas emissions.

But AMPCO certainly did not pull back from its lobbying against the coal phase out and Gibbons feels it was highly influential in convincing the Liberals to postpone the phase out deadline. AMPCO claimed that a coal phase out would raise electricity rates by 25%, lead to a \$16 billion hit on the province’s GDP, and kill 100,000 jobs.¹⁴ There may not have been a lot of evidence to back up these claims, but it was enough to shake political confidence in the coal phase out solution.

Fortunately, however, the association could not kill the idea of the phase out outright, particularly as its own studies showed a large increase, rather than a huge decrease, in greenhouse-gas emissions under its preferred approach. And unfortunately for AMPCO, the public was no longer willing to accept large environmental and health trade-offs in exchange for economic growth, especially at a time when the economy was strong and before the worst effects of the “off-shoring” of manufacturing had become evident. (In fact, in the early years of the new century, the Canadian petro dollar had yet to become a fact of life, meaning manufacturers and exporters were in much less of a cost squeeze thanks to a low Canadian dollar. In 2002, for example, the Canadian dollar hit an all-time low – post 1950 – exchange rate against the U.S. dollar, with a value of just below 62 cents U.S.)



OCAA asked its followers to take executives from AMPCO member companies to catch a screening of Al Gore’s documentary “An Inconvenient Truth.” It was a simple way of drawing attention to the fact that AMPCO’s preferred plan would lead to a huge increase in GHG emissions.

The OCAA also took this “good corporate citizen” approach to the issue of buying power in the privatized market, urging both companies and citizens to sign on with green power suppliers (or to at least avoid any supplier who refused to rule out coal). The OCAA got many of its municipal members to agree to source coal-free power, securing endorsements of the idea by nine major municipalities, including the City of Toronto, which spends roughly \$125 million per year on electricity. The OCAA also wrote to the 100 largest companies operating in the province to urge them to make clean power choices, while creating an “Electricity Choices” website to guide consumers looking for coal-free power.



But while the OCAA believed it had built a solid economic case for phasing out coal, it was also concerned that OPG and Hydro One’s financial interests were pushing them in a different direction. In 2002, Hydro One had proposed to build an underwater transmission cable from the Nanticoke power plant to the U.S. side of Lake Erie. With the cable in place, OPG could actually ramp up use of its coal plants to sell cheap export power to U.S. customers while staying within the Ministry of the Environment’s emission limits (which did not address GHGs) by adding further scrubbers, low NOx burners and other end-of-pipe measures to its plants.

The OCAA portrayed this plan as a heartless money grab by the newly created utilities, noting that power exports were “not worth dying for.” In particular, the OCAA highlighted the largely overlooked findings in an Independent Market Operator report that the province would have no need for coal-fired electricity once six of seven idled nuclear units were back online in 2005. And it linked these findings to OPG and Hydro One’s plans to use coal plants to produce cheap export power instead of meeting local needs.

Again, it was the ability to prove that coal burning had real and direct costs for the people of Ontario that put this plan into question, particularly as to who would really benefit from an increase in coal use.

Interestingly, direct job losses were never a major media issue in the campaign. There was local coverage of the issue in Nanticoke and Sarnia and concern about job losses held up progress on closing the northern plants, where the economy was weak. But the direct employment issue received almost no major media attention. The Power Workers’ Union, of course, did its best to defend coal, mostly through a series of newspaper inserts that touted things like non-existent clean coal technology and scrubbers.

It may have been that the partial privatization of the electricity system had created so much controversy that the issue was simply lost in the noise. And it may have been that the broader public simply did not believe that these jobs were sustainable, given the health impacts of coal. While concern over job losses may have led to the postponement of the coal phase out deadline, that was never the rationale offered by government.

For its part, the OCAA's position was that if any corporation could ensure a just transition for coal plant workers, it was OPG with its large workforce and robust spending habits.



A tumultuous political landscape

“The electricity system is one of the most meddled with and mismanaged files in the history of every Ontario government.” That’s the blunt assessment of Bruce Lourie, who questions why politicians have been so keen to try to use the electricity system to push their political and social ideology rather than to simply supply clean, reliable power.

Looking at any history of Ontario’s electricity system, including the capsule history provided by the OCAA in its *New Electricity Strategy for Ontario* report, you can see Lourie’s point. The old Ontario Hydro was far more than a simple utility — it was, in many ways, a branch of government that at times became heavier than most of the rest of the tree.

Typically, in the late 1990s, the provincial government of Mike Harris saw Ontario Hydro as a way to implement its political philosophy of free markets and a radically reduced role for government. With the Enron scandal and the California electricity market implosion still just disasters in the making, the PCs were keen to break up Ontario Hydro and sell off the parts.

There was some logic to the need to “do something” about Ontario Hydro as a series of massively over-budget nuclear projects had left the company essentially bankrupt. And, in fact, the first step toward privatization was for the government to absorb Hydro’s massive stranded debt (around \$20 billion) through the Ontario Electricity Financial Corporation (to be paid down through a debt retirement charge for electricity consumers, and the provincial income taxes paid by OPG, Hydro One and all of the province’s local utilities).

But even with a cleaned-up balance sheet for Ontario Hydro, privatization was doomed to fail, in Lourie’s view. “The chances of success were poor. Electricity prices had been long suppressed and no new supply had been created,” he notes. The result was that in the now competitive electricity market, prices immediately jumped and public controversy about the merits of privatization soared. That, in turn, drew more public attention to the state of the electricity system and its problems, including the potential for ramped up coal use, as highlighted by the OCAA.

The OCAA’s work to highlight the potential impact that privatization could have on air quality drew significant media attention and put the Harris government on the defen-

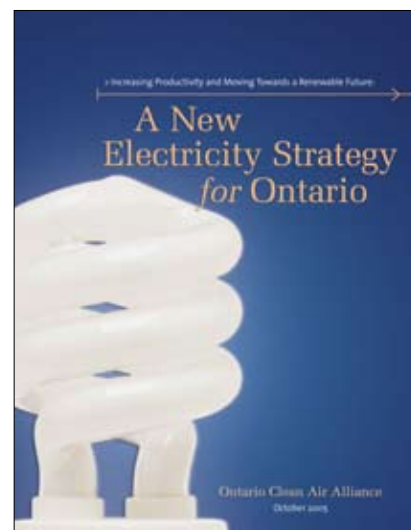
sive. In fact, Steve Gilchrist, who as a PC MPP chaired the Select Committee on Alternative Fuel Sources (see page 39), insists that the government never considered privatizing coal plants (at least as coal burners). However, there were certainly no statements to that effect from the government as it began its rollout of privatization and former Mississauga Mayor Hazel McCallion certainly felt she had never received any such assurance.

Pressure to close or convert the coal plants wasn't just coming from within the province, however. Former federal Environment Minister David Anderson saw an end to coal burning as a key way to meet the greenhouse-gas reduction targets Canada had agreed to in the Kyoto Accord. Anderson had been joined by Witmer at the Bonn climate talks in 2001 and felt there was an understanding that the province would develop plans to address its climate-destabilizing emissions. Anderson says he was under no illusions that achieving the Kyoto targets would be easy, but he thought best efforts would be made: "I knew Kyoto would be a stretch, but thought we should make our best effort – as an athlete you would never show up and say 'it is going to be difficult to take home the gold, so I am not going to try'."

Anderson went public with a call to phase out coal burning at the first "Smog Summit" in Toronto in mid-2000 and warned any company considering buying one of Ontario's coal plants that it would have to meet the emission standards set out in the recently signed Ozone Annex. Anderson added that he viewed Ontario's emissions reduction plan, which relied heavily on buying out-of-province emission reduction credits, as inadequate.¹⁵

"People who are buying those power plants, they've got to realize that even if the Ontario government doesn't bring in the regulations, the federal government will," OCAA Chair Jack Gibbons warned in the *National Post*.

Pressure was being put on Anderson, in turn, by the OCAA which was demanding that the minister cap the emissions of the Nanticoke station. The OCAA accused OPG of underestimating Nanticoke's potential output to avoid a federal review of its plan to add scrubbers to the plant rather than converting it to gas. While OPG had told federal officials considering the assessment request that the plant could not realistically operate at more than 65% of its rated capacity, OPG Chief Operating Officer Graham Brown later acknowledged in a letter to the OCAA that the plant was capable of running at 80% capacity.¹⁶



OCAA's report provides a history of Ontario's electricity system, one that Bruce Lourie says is "one of the most meddled with and mismanaged files in the history of every Ontario government."

The OCAA's revelations about Nanticoke's potential emissions left the plant's northern U.S. neighbours fuming. By 2003, New York State Attorney General Eliot Spitzer had had enough of writing to Anderson about the need for action on Ontario's southern coal plants. Spitzer decided to try his luck with a first-of-its-kind complaint to the NAFTA Commission for Environmental Cooperation, and announced he was going to turn to the new tribunal at a press conference in Buffalo where he was joined by Gibbons.

Ontario's then Environment Minister Chris Stockwell's response that Spitzer should focus on the Ohio Valley was undercut by the fact that Spitzer was clear that Ohio was only part of the problem and that he had already sued Ohio coal-plant operators. Now, he insisted, it was time to address the other major source of New York's air-quality problems – Ontario's coal plants.

As an attorney who had honed his skills battling Wall Street bankers, there is little doubt that Spitzer was aware that the NAFTA complaint had little chance of resulting in real penalties. But it was an opportunity to paint Ontario as a careless neighbour that was dumping its smog problems over the backyard fence.

Meanwhile, Gibbons noted that the Eves government's freshly announced commitment to close the coal plants by 2015 meant "12 more summers of smog" for the people of both Ontario and New York.

However, reaching consensus on even that far-off date had been something of a struggle, Elizabeth Witmer acknowledges. "The government was divided on the feasibility of a coal phase out," she says. But she notes she had directed her ministry to develop "a realistic plan with timelines and targets" for getting rid of coal, starting with Lakeview given that "it was the smallest and therefore the most logical starting point." Witmer says that her plan made it clear that a phase out could be achieved by 2015. She adds that "the reason I was successful getting [the plan] through cabinet was that we had a realistic plan of action, a very detailed plan."

But Ted Boadway is less convinced that there was a strong intention in the PC government to follow through with a full coal phase out. He feels the PCs made a "laughable" effort to deal with coal and when it came to Harris, "you might as well have been talking to a table."

In the wake of the OMA's health impacts study and the growing evidence of coal's impacts, Boadway says he was "bitterly disappointed by the Harris government's refusal to act — that was the biggest surprise to me." He adds that the Lakeview decision was, in his view, completely a reaction to the pressure put on by McCallion and the fear of losing 905-area (code) seats rather than a desire to do the right thing.

Boadway adds that “an uncaring government can be an asset, however.” He explains that the government could have effectively “muddied the waters with half-measures,” but the Tories’ inaction left a window of opportunity wide open for the opposition parties. “So a party out of power [the McGuinty Liberals] decided to embrace the message and run with it, just what we’d hoped for.”


The lesson, Boadway continues, is that “When you push and push and nothing happens, pressure builds up. That then leads to a sudden change and makes it possible to achieve more in one fell swoop. Harris allowed exactly this to happen.”

In fact, the PCs did take one highly innovative initiative with the creation of the Select Committee on Alternative Fuel Sources in 2001-02. The committee was the brainchild of then MPP Steve Gilchrist, who had been forced to step down as Minister of Municipal Affairs due to a conflict-of-interest allegation (he was later cleared). Gilchrist’s idea was for a committee with equal representation from all three parties to map out a way forward for the province’s energy sector, particularly how its environmental impact could be reduced.

Read today, the committee’s final report, issued in June 2002, remains a remarkable piece of work. Among its 141 recommendations are “an aggressive renewable portfolio standard,” a systems benefit charge to fund renewable power development, and “aggressive energy conservation and efficiency standards.” The report envisioned a rebate program for the installation of solar panels “on 100,000 Ontario homes,” full “hydrogenization” of GO transit’s rail and bus services by 2006, and development of the Beck 3 Niagara River tunnel (completed in 2013).¹⁷

But one of its highest profile recommendations was “the long-term elimination of traditional carbon-based generation by 2015,” with the two northern coal plants closed by 2005.

The committee defended its vision by noting that “aggressive action on alternative fuels and energy can serve to substantially reduce Ontario’s dependence upon traditional petroleum-based fuel and energy sources. Progress in this area will provide significant long-term environmental (particularly air quality), social and economic benefits to Ontario.”



Boadway adds that “an uncaring government can be an asset.” The government could have effectively “muddied the waters with half-measures,” but the Tories inaction left a window of opportunity wide open for the opposition parties.

Gilchrist believes that no one should be surprised that a Conservative would support such a vision. “Just because I’m Conservative doesn’t mean I don’t care about the environment or about health and my kids’ health,” he points out. In fact, Gilchrist’s one major lament for the committee’s work is that its recommendation to move away from fossil fuels for electricity generation was not fully implemented. “I think it’s disappointing that we have replaced one fossil fuel — coal — with another only slightly cleaner fossil fuel — natural gas,” he states.

Witmer also believes that the Conservatives were not given the credit she thinks they were due, noting, “Our government made progressive decisions on environment and health, but that’s not what people remember.”

“A province as blessed as ours, as technologically advanced as ours, and as naturally beautiful as ours shouldn’t see nearly 2,000 people a year killed by bad air,” McGuinty told reporters sweltering in 30 plus degree heat.

On the heels of the all-party report, there was no question that there was unanimous support, at least in theory, for phasing out coal at Queen’s Park. But to Dave Harvey, the opportunity for the Liberals was to include a strong commitment to a full phase out in their election platform. “The Conservatives were committed to closing Lakeview, but they were fighting closure of Nanticoke and Lambton locally. And the NDP was not aggressively promoting a phase out policy,” he recalls. The Liberals decided the time was right to make the issue their own.

Indeed, by 2002, the Liberals were rolling out the first planks of a green platform, including fuel-tax funding for transit, and a requirement for ethanol in gasoline. Front and centre was the commitment to close the coal plants: “A province as blessed as ours, as technologically advanced as ours, and as naturally beautiful as ours shouldn’t see nearly 2,000 people a year killed by bad air,” Dalton McGuinty told reporters sweltering in 30 plus degree heat. Echoing

the OCAA, McGuinty added “Coal is 19th century, it’s dirty, it’s dangerous.”¹⁸

To Witmer, the public appetite for such a message was strong thanks to a strong economy. “People had confidence in the economy and therefore environment had greater prominence. The timing was right.”

But the Liberal platform was also designed to clearly differentiate the party from the PCs, who were still trying to shed a reputation for environmental mismanagement in the wake of the Walkerton water crisis of 2000. Gilchrist firmly believes that if the Tories had

been re-elected, the recommendations in the all-party report would have been enacted by an Ernie Eves government, but that perception of the PCs supporting strong action on air quality wasn't equally shared by voters. "Credit flows to those who do things out of goodwill, not to try to save face," remarks Boadway.


The big barbecue controversy didn't help. In June 2003, then Environment Minister Jim Wilson made the front page of the *Toronto Star* for issuing a warning that the public should lay off the grill during yet another stretch of hot and smoggy days. "Clearly anything they (the public) can do to cut down their use of equipment or barbecues that produce smog" would help, the minister told reporters, according to the *Star*.¹⁹

But while there was a point buried in the minister's message about the smog impact of things like two-stroke lawnmower engines on air quality, the problem was that the minister then went on to say that coal plants were only "a small part" of the province's air-quality problems. PC Leader Ernie Eves probably only made matters worse when he chimed in that he himself had "ordered Swiss Chalet last night instead of barbecuing."

The resulting perception was of a government that had its priorities backwards, worrying about trivial sources like barbecues as the province choked on smog from giant coal plants. That the minister was "roasted by critics" — as the *Star* put it — isn't that surprising. And the OCAA certainly didn't hold back in pointing out the differences between the impact of the average backyard grill and the output of the Nanticoke Generating Station.

Dave Harvey recalls that as the Liberals prepared for the 2003 election, voter concern for the environment was polling high, a level only exceeded, he believes, during the provincial election in 2007. The commitment to end coal burning wasn't the only reason voters chose to elect a McGuinty government, but it was an important metaphor for a reinvigoration of the government's role in protecting health and the environment.

"At the end of the Harris era and post-Walkerton, there was a sense that you couldn't



Environment Minister Jim Wilson issued a warning that the public should lay off the grill during another stretch of hot and smoggy days. PC Leader Ernie Eves made matters worse when he chimed in that he had "ordered Swiss Chalet last night instead of barbecuing."



TORONTO STAR

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Is this man's barbecue increasing the summer's smog? Minister says yes . . . and gets a roasting from critics



Trent Tran flips hot dogs on his barbecue at Ashbridge's Bay Park yesterday. Environment Minister Jim Wilson is urging Ontarians to limit grill use to help curb pollution. (LUCAS OLSEN/TORONTO STAR)

Lay off the grill, top Tory advises

His comments are called 'ridiculous'

RICHARD BRENNAN
QUEEN'S PARK BUREAU

Ontario's environment minister appeared more concerned about pollution from barbecues yesterday than he did about the province's coal-fired power stations. Jim Wilson said Ontario residents should eschew the temptation to throw a steak on the grill on smoggy days when the air is tough to breathe.

"Clearly anything they (the public) can do to cut down their use of equipment or barbecues

Go ahead, make it well done

How the pollutants compare:

<p>➤ Coal-fired plants ...</p> <p>Nanticoke generating station, Canada's top polluter, released</p> <p>7.5 million kg pollutants in 2001.</p>	<p>➤ The family SUV ...</p> <p>In one year a mid-size SUV travelling 24,000 kilometres produces</p> <p>10 kg smog-forming pollutants.</p>	<p>➤ The barbecue ...</p> <p>The impact of barbecuing is "so trivial that no one has ever quantified it," says the Ontario Clean Air Alliance.</p>
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that produce smog" would help, he told reporters on his way into the weekly government caucus meeting. Coal-fired generating stations are only a "small part" of the pollution problem, Wilson said.

But the environment minister was raked over the coals for his

comments, which came as the province grappled with a second day of smog advisories and sweltering temperatures.

Jack Gibbons, chair of the Ontario Clean Air Alliance, said Wilson's comments were "just ridiculous."

"Ontario Power Generation's

coal-fired power plants produce as much pollution as 6 million cars a year, so they are much more significant than your backyard barbecue," said Gibbons adding the impact of barbecuing is "so trivial that no one has ever quantified it."

The coal-fired Nanticoke plant

on the north shore of Lake Erie is the biggest in North America and is reported to be the largest single polluter in Canada. And as temperatures soar, the province's five coal-fired plants are working overtime.

Grill guru Ted Reader, host of CTV's weekly barbecue show *King of the Q*, said while barbecuing may contribute to heat elevation, it is "a little ridiculous" that this is the focus of attempts to combat smog.

"If people don't grill, they go indoors to cook, and increase their use of the air conditioning system," he said.

➤ Please see Grill, A21

➤ Alert as city sweaters, B4

➤ Power grid faces test, E1

Police lawsuit against the Star dismissed

Officers' union sought \$2.7 billion

Stories dealt with racial profiling

TRACEY TYLER
LEGAL AFFAIRS REPORTER

An Ontario Superior Court judge has dismissed a \$2.7 billion class action libel lawsuit brought against the Toronto Star by members of the Toronto Police Association, who claimed a series of stories about racial profiling implied they were all "racists" and "bigots."

In throwing out the lawsuit yesterday, Mr. Justice Maurice Cullity said it was "plain and obvious" it had no hope of succeeding at trial.

The police association alleged that every officer's reputation was damaged by the Star's Race and Crime Series, but a simple reading of the stories "destroys" the foundation of the lawsuit, the judge said. "The whole thrust of the articles is that the evidence suggests that racial profiling occurs and that steps must be taken to identify the causes and remove them."

In the series, the Star looked at a police database of charges laid between 1996 and 2002 and concluded that, in some cases, blacks are treated more harshly than whites.

Blacks charged with simple drug possession were taken into custody twice as often as whites, the series found, while black motorists were ticketed more often than white drivers for violations discovered after they were pulled over.

The stories cannot "be reasonably understood" to state or even hint "that every member of the service is a racist or a bigot," Cullity said.

➤ Please see Lawsuit, A8

just get rid of government — that it had important jobs to do, like testing water or controlling pollution,” says Lourie.

The OCAA made sure voters were clear on the party positions by surveying the parties on their coal commitments and distributing thousands of pamphlets outlining their responses during the run-up to the 2003 election. Election questionnaires were an important tool for the OCAA: In 2002, a similar questionnaire had elicited commitments from Tory leadership contenders Elizabeth Witmer and Tony Clement to end coal burning at Nanticoke.

The Liberals arrived in office with a bold commitment to close the coal plants by 2007 but also with the inherited baggage of an electricity-system privatization plan in great disarray. They also took office on the heels of the largest electricity-system blackout in North American history — the August 2003 system outage that affected 55 million people in an area stretching from Ontario to Maryland. Oddly enough, in Harvey’s view, the blackout had an important silver lining: “It gave the public the impression that the system had been mismanaged, and that provided a lot of latitude for change,” he notes.

But while the blackout may have increased public acceptance of the need for reinvestment in the electricity system, it also created a great deal of concern — and opinion-leader chatter — about the fragility of the province’s electricity supply. There was also a political object lesson in what happens to governments running for re-election after the lights go out. These factors combined to create a growing sense of leeriness about the feasibility of phasing out coal by 2007.

Of course, one of the key factors in Ontario’s big ramp up in coal use and slower-than-average recovery from the blackout was its still struggling nuclear plants. McGuinty was clearly banking on the nuclear plants that had been shut down for retrofits to be back online by 2007, but he would quickly discover that when it came to nuclear costs and timelines, certainty is a mirage.



The long road to the final phase out

With all three Ontario parties clearly committed to phasing out coal — while disagreeing on deadlines — and the public strongly onside, the OCAA could have walked away in 2003 believing its job was done.

There was, in fact, a big celebration in 2005 with awards presented to then Premier Dalton McGuinty, Mississauga Mayor Hazel McCallion, and former PC Environment Minister Elizabeth Witmer. But it was a celebration designed to cement a commitment as much as to toast success and honour three clean air champions.



Premier Dalton McGuinty, former PC Environment Minister Elizabeth Witmer and Mississauga Mayor Hazel McCallion were presented awards at the 2005 Goodbye King Coal celebration.

The OCAA was well aware that the 2007 date adopted by the Liberals was ambitious. In hindsight, Dave Harvey says “the 2007 date seemed reasonable given the information we had at the time. It was not a make-believe date,” adding that as a then opposition party, the Liberals certainly could not call on the full analytical powers of government to determine the feasibility of their plan.

Plus, Harvey adds, McGuinty knew that a commitment this

ambitious would require some extra motivation. “The Premier wanted to get it done, to hold people’s feet to the fire. If we had said 2011, it probably would never have gotten done,” he believes.

For his part, Gibbons firmly believes that the government could have achieved its original objective if there had been greater buy-in from the energy bureaucracy and the newly created Ontario Power Authority. But it seemed like these agencies were more interested in protecting the status quo than getting the phase out rapidly completed.

Indeed, rumblings about “difficulties” began to emerge in 2005. The government’s initial 2007 commitment began to really unravel in June of that year when then Energy Minister Dwight Duncan announced that there would be a delay in closing the Nanticoke plant. Duncan stated that “we’re missing our deadline by a few months... out of an abundance of caution” and that three out of the remaining four plants would close on schedule in 2007. (Lakeview was closed on schedule in 2005.)²⁰

The OCAA had been warned the announcement was coming and Gibbons, based on the OCAA’s own recommendation of a 2010 shutdown date for the coal plants, was willing to stand by the government. With the Ontario Medical Association releasing updated health impact numbers right before the Liberal announcement, there still seemed to be a strong incentive for the Liberals to get the job done quickly.

Gibbons points out that the Liberals appeared to have based their 2007 coal phase out deadline on a June 2002 OCAA report, which revealed that the Independent Electricity Market Operator (predecessor to the Independent Electricity System Operator – IESO) forecast that Ontario would have virtually no need for coal by 2007.²¹ The Market Operator’s forecast was based on the assumption that the nuclear units that had been shut down for repairs would return to service on schedule or at worst one year later. Since the OCAA did not share the Market Operator’s faith in nuclear power, it continued to recommend a 2010 date for a complete coal phase out.

Meanwhile, as of 2005, Pickering A Unit 4 had been shut down for a second time for additional repairs, and the Unit 1 rebuild project was well behind schedule. Two other Pickering A units remained completely shut down. So, to the OCAA, the delay of the coal phase out was really a symptom of the province’s over-reliance on unreliable nuclear power more than a lack of commitment by the government.

In fact, the OCAA pointed out to its supporters and the public that the government’s delay would allow for the implementation of a superior solution for replacing power from Nanticoke. Converting the giant coal burner to natural gas would have resulted in a plant that operated at around 34% efficiency. Replacing it with new combined-cycle gas plants would raise that efficiency to closer to 60%, meaning a much more significant drop in emissions. To the OCAA, the promised 15-month delay to achieve this result was “worth the wait.”



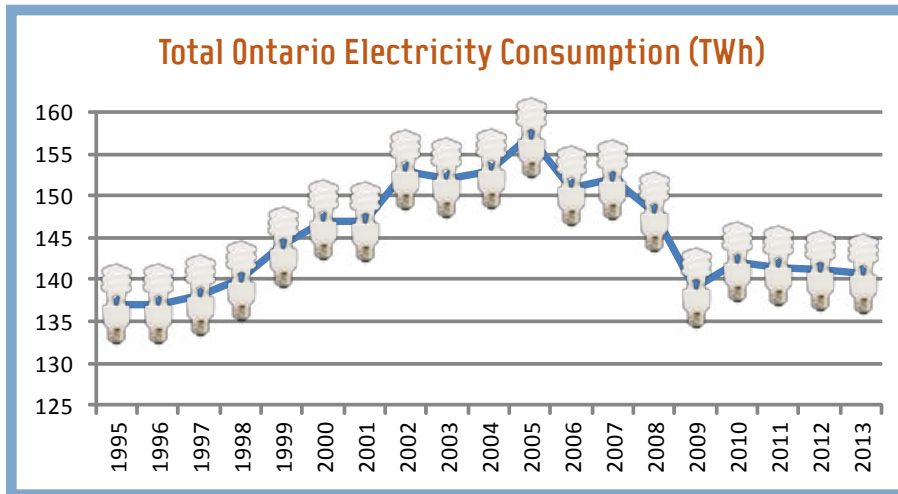
OCAA Chair Jack Gibbons bids adieu to King Coal.



Yvonne Bambrick

The OCAA went strongly to bat for the government, penning an opinion piece for the *Ottawa Citizen* that applauded the government's plan to replace coal with a mix of high-efficiency gas generation, renewable power and increased conservation as well as its decision to avoid high-cost new nuclear as a replacement option.

It wasn't the most comfortable position for the OCAA — defending a delay in an achievement it had worked for eight years to secure — but it seemed to make sense given that there were no clear signs of a major pullback — yet. Six months later, however, concern started to grow. The newly created Ontario Power Authority (OPA) issued a report in December 2005 intimating that a coal phase out was going to be difficult to achieve, noting "it would make sense to continue monitoring the timing risks around the current schedule." It also recommended keeping coal plants intact "in case" technology capable of cleaning up their emissions became available in the future, a farfetched option as then Energy Minister Donna Cansfield pointed out in the *Globe and Mail*.²²



Despite coming from a new agency, the report really represented the resurrection of the views of Ontario's electricity old guard. It included the usual projections of rapidly increasing electricity demand that electricity planners in Ontario had long relied on to justify nuclear mega projects, despite the fact that they rarely, if ever, proved accurate. And, par for the course, the plan included a recommendation to begin

spending up to \$40 billion on new nuclear units. Ironically, 2005 would actually mark the year in which total electricity demand began to steadily decline in the province.

With the *Globe and Mail* championing the Association of Major Power Consumers of Ontario's (AMPCO) position that Ontario should stick filters on the end of pipes instead of phasing out coal, the OCAA did what it did best: used real-world examples to illustrate the problem. OCAA pointed out that the Lambton plant's Unit 4, considered the "cleanest" coal boiler in Ontario, had a sulphur dioxide emission rate that was 49 times greater than what would be produced by a new natural gas-fired plant. The OCAA also turned AMPCO's own figures back on the association, noting that according

to its own report, AMPCO's preferred scenario would result in a 27% rise in electricity-system greenhouse-gas emissions instead of a drop of 77% if coal burners were replaced by natural gas.

These comparisons were helpful not just in keeping the public onside with the coal phase out plan, but also in encouraging AMPCO member companies to disassociate themselves from the organization's anti-phase out position. Interestingly, the Canadian Manufacturers & Exporters took the opposite view of AMPCO, saying that "One of the least expensive ways of reducing GHG emissions is by switching from coal to natural gas, especially in the generation of electricity."

On June 9, 2006, the IESO issued its *Ontario Reliability Outlook Report* which announced that it had recently determined that Ontario needed an extra 2,500 to 3,000 megawatts (MW) of electricity resources to keep the lights on during peak summer days. As a result, it said, "Significant delays in the current load replacement schedule will be needed given the time required to implement the additional initiatives needed to maintain reliability."

Four days later, the McGuinty government announced that it was breaking its promise to phase out coal burning at the Lambton, Atikokan and Thunder Bay Generating Stations in 2007 as well as at Nanticoke by 2009. The government claimed it was still committed to a coal phase out, but it no longer had a firm phase out date. Instead it merely asked the OPA, an agency whose senior staff did not support a coal phase out, to develop a plan to phase out coal "in the earliest possible time frame." The fox had been put in charge of the chicken coop.

In the OCAA tradition of keeping communications lively and accessible, the organization responded to McGuinty's announcement by producing a "Smog Season Getaway Calendar" featuring potential smog days and a map of the Nanticoke pollution plume for vacation-planning purposes. This tongue-in-cheek messaging got the point across about the real impact of an open-ended delay to phasing out coal.



Unlike the 2007 deadline broken promise, the government did not consult with the OCAA in advance of its announcement or seek its advice about alternative strategies to keep the lights on. And while the government claimed that its broken promise was driven solely by the need to maintain electricity system reliability, this claim is doubtful for a number of reasons.

First, the June 13th broken promise was combined with a directive to OPG to cancel its planned conversion of the Thunder Bay Generating Station to natural gas despite the fact that, according to the IESO, this conversion would permit the phase out of coal burning at both the Atikokan and Thunder Bay Generating Stations in 2007 *without* jeopardizing reliability.

Unlike the 2007 deadline broken promise, the government did not consult with the OCAA in advance of its announcement or seek its advice about alternative strategies to keep the lights on.

Second, if reliability was the only concern, the government could have directed that Nanticoke's boilers be converted to gas so that they could continue to operate on peak summer days to keep our air conditioners on without breaking the 2009 coal phase out deadline. Alternatively, the government could have achieved a virtually complete coal phase out (99%) by putting Nanticoke on standby reserve as of the end of 2009 and only allowing it to operate on peak summer days if its operation was absolutely essential to keep the lights on.

There is no doubt that the decision to delay proved politically costly, even if it was motivated, as some believe, by a desire to save Liberal seats in ridings with coal plants. It contributed to the narrative of McGuinty as a promise breaker and undermined one of the most popular commitments he had made while running for premier. In fact, this dubious decision could well have led to the loss of the 2007 provincial election if new PC Leader John Tory had not raised the issue of religious school funding, which immediately became "the ballot box question."

There was another cost to the decision to delay: Beginning in 2009, the continued operation of the coal plants was no longer profitable for OPG since they couldn't compete with Ontario's new gas and renewable generation sources. Specifically, OPG's operating losses on its Nanticoke and Lambton coal plants totalled \$1.678 billion between the beginning of 2009 and the end of 2013. These financial losses were subsidized by Ontario's electricity consumers via the Ontario Electricity Financial Corporation.


Dave Harvey says the decision to delay the coal phase out “was gut-wrenching.” But he feels that while the delay did feed a narrative in the 2007 election (and the 2006 Parkdale-High Park by-election) about Liberal broken promises, it did not deeply damage the government’s credibility. “People saw that we were not giving up and were making tangible progress,” he says, adding “There was never any question that it wasn’t going to get done. McGuinty was deeply committed and the idea was too widely supported.”

But to the OCAA, a vague commitment left in the hands of an agency that had not shown itself to be in any particular hurry to get rid of dirty coal simply wasn’t good enough. The coal phase out was now in real jeopardy, subject to the classic “delay” tactic long used by governments or industry opponents seeking to divert pressure to do the right thing. Ontario had the means to proceed with the phase out, but it suddenly seemed to be lacking the political will.

In response, the OCAA hit the ground running within two months, with a major push during a September provincial by-election in Parkdale-High Park — the heavily progressive and “green” riding being something of a gift to spurned environmentalists. With the Liberal incumbent, Gerard Kennedy, moving on to federal politics, the contest represented a chance for the NDP to steal a seat and the party nominated popular local United Church minister Cheri DiNovo.

The OCAA set up shop in the riding and started canvassing, distributing thousands of pamphlets calling on the parties to commit to phasing out Nanticoke by 2009. Despite the Liberals’ comfortable majority, the party pulled out all the stops to try to hold the riding, sending then Premier McGuinty to the riding three times and touring through 11 different cabinet ministers.²³

But the OCAA made sure that the issue of the broken coal phase out promise was raised on doorsteps, at all-candidate meetings and at subway entrances as Liberal candidate Sylvia Watson turned to ever more desperate measures to try to turn back DiNovo. The OCAA, meanwhile, focused on Nanticoke and its giant emissions footprint, again making it very concrete what a delay in ending coal burning would mean for people living in the giant coal plant’s emissions drop zone.



The coal phase out was now in real jeopardy, subject to the classic “delay” tactic long used by governments or industry opponents seeking to divert pressure to do the right thing.

The OCAA also, of course, highlighted the fact that the Liberals were, oddly, the only party that refused to commit to a binding regulation requiring an end to coal burning at Nanticoke by 2009. Watson's commitment to phase out coal "as soon as possible" was not enough to get her elected and the NDP took the riding in what was widely seen as an upset.

The Liberal government's credibility on phasing out coal took another hit in November 2006 when the OPA came back with a recommendation to wait until 2014 to fully phase out coal. To the OCAA, this plan was less about ensuring the reliability of the electricity system, as the government spun it, as it was about the unwillingness of the energy bureaucracy to take concrete steps to improve efficiency and develop alternatives other than slow-to-deploy nuclear.

Far from being a plan to end coal use "in the earliest practical time frame," in the OCAA's view the OPA plan drew out the process as long as possible. The OCAA pointed out that the OPA's plan would result in the province missing its Kyoto greenhouse-gas reduction targets for 2010 and leave the province paying the staggering \$1.7 billion a year in health costs due to coal for many more years to come.

The OCAA was not convinced that the OPA would follow through on its non-binding plan to phase out coal by 2014 and was left wondering what had become of the premier's personal commitment to the coal phase out, which had once been so strong.

But the OCAA was not about to give up. In November 2006, it countered the OPA's "all slow ahead" plan with its own plan: *An End to Dirty Power: A real plan to achieve a true coal phase out*. The plan pointed out a serious flaw in the OPA's reasoning: its plan to export 90% of Ontario's coal-fired electricity to the U.S. by 2010. This expedient but highly polluting strategy provided an opportunity for the OCAA to punch a hole in the Liberal government's reliability argument by suggesting that if reliability was indeed the issue, the coal plants could simply be put on standby reserve and operated only if absolutely needed to keep the lights on in Ontario (and not in Buffalo).

Once again, the OCAA touted the marginal cost of phasing out coal — now 34-53 cents per month — versus the huge health and environmental costs of leaving the plants running for another decade with most of their power actually being exported to the U.S. In December 2006, the OCAA delivered the message while parading up Toronto's University Avenue with a Santa Claus to deliver a lump of coal to the premier.

Gibbons hit the road in the spring of 2007 and made deputations to a number of municipal councils asking them to pass resolutions endorsing an end to coal burning at Nanticoke by the end of 2009. Gibbons' recommendation was, in a number of cases,

backed by local public health agencies that saw the real-world impacts of coal burning, especially on vulnerable populations. The municipalities may not have had much power to stop coal burning, but their support for a quick phase out helped to keep the pressure on.

New York's Eliot Spitzer shared the OCAA's disdain for the OPA's new phase out schedule. He had pulled together his own coalition of seven U.S. states affected by Ontario coal-plant emissions to demand that the head of the U.S. Environmental Protection Agency raise the issue with then federal Environment Minister David Anderson at the Summit of the Americas in Quebec City. Spitzer dismissed Ontario's plan to add more pollution controls to its coal plants, noting that conversion to natural gas would achieve much more. Anderson shook off the request, despite the fact that he was deep in his own struggles to build momentum around achieving Kyoto greenhouse-gas targets.²⁴

A few months later, in April 2007, Ontario's then Energy Minister Dwight Duncan announced that the government would not add scrubbers to Nanticoke, with the justification that "it makes better sense to replace coal as quickly as we can." This statement was in response to the OPA's plan to add scrubbers as a stop-gap measure, a position later echoed by new PC Leader John Tory, who said \$1.3 billion should be spent on scrubbers for Nanticoke as an interim pollution control measure.

The OCAA pointed out that Tory's plan was both under-budgeted (by hundreds of millions of dollars) and ineffective, leaving the *Brantford Expositor* to ask "What is it about Nanticoke that makes politicians go loopy? Is it something in the air?"²⁵

The OCAA, of course, was determined to elicit strong commitments to a full coal phase out — and not a marginal coal clean up — from all parties in the 2007 provincial election campaign. It released a "Critical Review" of the OPA's phase out plan in September as the provincial parties prepared to hit the campaign trail. The report turned the OPA's numbers on their head to show that a coal phase out by 2010 was practical, both from a system reliability and cost perspective. A key element of the OCAA plan was to ban "non-emergency" coal-fired power exports to the U.S., a no-brainer for the Ontario public still suffering through dozens of smog days each year.

The case against scrubbers and for phasing out coal had been bolstered earlier by the OCAA's latest NPRI-based report, *OPG: Ontario's Pollution Giant*. The report itemized the whole range of pollutants produced by burning coal and the fact that coal was a leading



The Brantford Expositor asked, "What is it about Nanticoke that makes politicians go loopy? Is it something in the air?"

source for many of the worst pollutants. It painted the province's coal plants as such large and noxious polluters that closure was the only possible solution.

During the fall election, the OCAA once again surveyed the parties on their phase out deadline positions and made a strong effort to get this information out to voters. The Liberals were prepared, having finally decided to pass a regulation in August 2007 requiring a full phase out by no later than December 31, 2014.

With the Liberals back in power and a regulation in place to end coal burning within a decade, some groups may have considered the issue decided. But not the OCAA. It continued to fight relentlessly for an earlier phase out, pointing out that, based on IESO projections the province's coal-free generating capacity would exceed peak demand by 7% in 2009, meaning the province would not actually need coal to keep the lights on. It called on its supporters to press McGuinty to get rid of coal by no later than the end of 2010.

The government got the message that the OCAA wasn't going away, and in the spring of 2008 directed OPG to cap coal generation at 20 billion kWh in 2009 and at 15.9 billion kWh in 2010. This was a significant drop (59%) from the 27 billion kWh the OPA had envisioned the coal plants producing in 2010 in its phase out plan.

And, in fact, coal did prove to be largely superfluous in 2009 with the province's total power exports exceeding its coal-fired generation (see Appendix D on page 79). That year coal-fired generation fell to its lowest level in Ontario in 45 years, making the coal plants actually uneconomic to operate.

Coal became even more marginal in 2010, when the government directed OPG to cap coal-plant GHG emissions at 11.5 megatonnes per year starting in 2011. That was about one-third of the GHGs that the coal plants had pumped out in 2005.

The OCAA kept up a steady drumbeat for an early end to coal use, with regular updates on the financial costs of keeping the plants operating at low levels and the growing surplus of coal-free power available to the province.

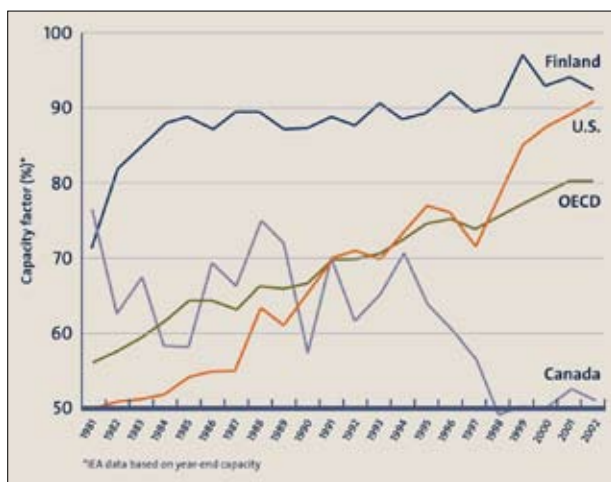
Finally, in January 2013 the McGuinty government relented, announcing that the coal plants (with the exception of the small and little-used Thunder Bay plant) would be closed a year ahead of schedule. The big Lambton plant was quietly closed in the fall of 2013 while Nanticoke burned its last piece of coal in December. With Atikokan converted to biomass in 2012 and Thunder Bay closed in April 2014, the job was finally done.

A good phase out

The OCAA's primary goal was always to eliminate coal use as quickly as possible. But it was also interested in getting the biggest emissions reduction bang for its efforts. In fact, the OCAA also saw the coal phase out as a lever to achieve some fundamental reforms to the way Ontario approached energy and move the province toward a 100% renewable electricity grid.

There were two major themes to this work: The first was to orient the system much more toward efficiency and distributed generation and away from the kind of mega mentality that had led to the building of giant coal plants in the first place. The second was to address what the OCAA saw as one of the key underlying factors in the huge ramp up in coal use in the 1990s — the province's unreliable nuclear plants — and to push the province to import low-cost (and more flexible) water power from Quebec instead.

International comparison of nuclear reliability, 1981-2002



The OCAA first laid out its vision for a different type of electricity system in its *New Energy Directions* report released in 2004. The report's strategy to reduce the environmental impact of electricity production was endorsed by a number of electricity sector entities, including more than a dozen municipal utilities.

That was followed by the comprehensive *New Electricity Strategy for Ontario* report in 2005. This think

piece laid out the problems with the province's generation-first approach and pointed to the need to reorder the province's priorities.



This was followed by a steady drumbeat of reports, factsheets and bulletins highlighting the government's lopsided spending on new generation versus conservation, its failure to achieve peak-demand reduction objectives, and its general willingness to continue to write blank cheques to the nuclear industry.

Once again, the OCAA used specific examples to highlight these issues, such as fighting the development of an inefficient gas peaker plant in York Region as a way of highlighting the province's still weak efforts when it came to improving conservation and efficiency. It also constantly compared Ontario's level of energy efficiency to that of New York State — believing that Ontarians would see their cross-lake neighbours as a more valid comparison than warmer and more remote jurisdictions like California. The idea that Ontario's electricity consumption per person was 50% higher than that of New York State residents was a powerful metaphor for how our province lagged in efficiency efforts.

Dave Harvey acknowledges that the government's early efforts to improve energy conservation were slow to take hold. "It was hard work getting a real conservation effort started. The bureaucracy really didn't get it at all. They believed you could never rely on conservation, that it was just an extra. You projected X demand and you acquired X generation.

"It was very, very difficult to change this mentality," he adds. It wasn't just in energy, however, that whole mindsets needed changing. "I remember asking MTO [Ministry of Transportation] what its budget ask for transit would be in '04. They said they required \$75 million for installing HOV [High Occupancy Vehicle] lanes. It was a similar mindset — they just had no perception what transit meant," Harvey recalls.

But to the OCAA, conservation was Ontario's untapped gold mine: cheaper than almost any other option for meeting the province's electricity needs and a fast way to reduce its greenhouse-gas and smog-causing emissions. For a number of years, it ran its own annual "Peakbuster" contest to try to convince average Ontarians to sign up for the province's woefully undersubscribed peaksaver program.

At the OEB, Gibbons fought for new rules to make it more financially attractive for utilities to deliver conservation programs and generally advocated for making local utilities, with their high customer trust and detailed market knowledge, "conservation champions."

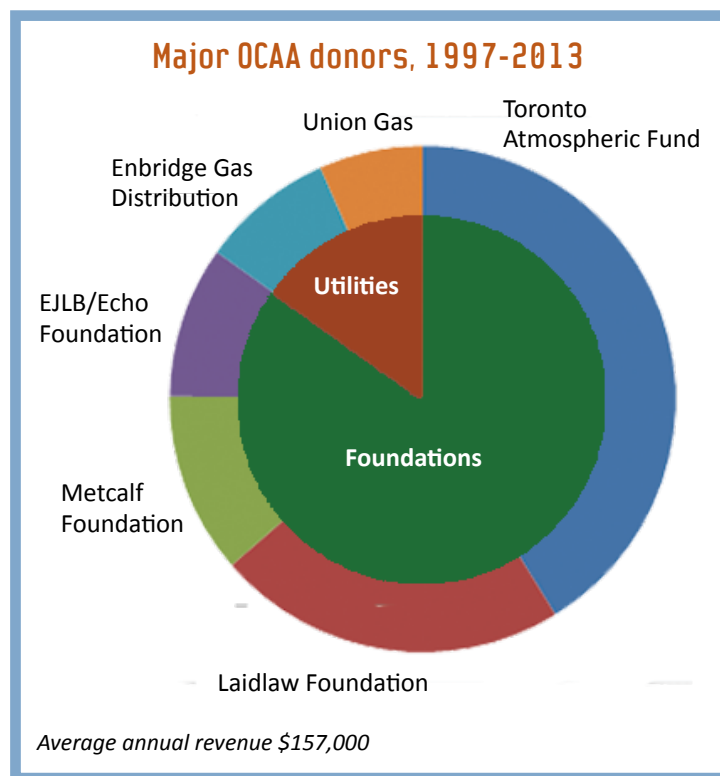
The organization was also always aware that it was perceived as being “friendly” to natural gas and therefore always went out of its way to stress the need for efficient gas use, both by avoiding projects like the simple cycle York peaker plant and by embracing combined heat and power (CHP) as a way to maximize the value of any gas burned. It produced a series of case studies on the advantages of CHP and later commissioned an economic study of the employment and revenue benefits of more efficient gas use from one of the province’s most respected economic modelling firms.

But despite the OCAA’s efforts, the OPA kept throwing up roadblocks to both utility-driven conservation programs and greater use of CHP. Directives to increase CHP use, for example, were never acted on due to the OPA’s insistence that CHP was “too costly”.

The OCAA was convinced that the real problem was that the OPA and the broader energy bureaucracy were using the wrong cost benchmark — an artificially low price for new or re-built nuclear power.

Certainly through the 1990s and early 2000s, the myth that nuclear power was “cheap” was strongly ingrained in Ontario political and media culture. It was an odd perception given that nuclear projects had essentially driven Ontario Hydro into bankruptcy. But the one advantage that nuclear projects did have was a shared willingness among political leaders, bureaucrats and the industry to keep real project costs well hidden.

The situation began to change in 2009 when, under pressure from the OCAA, then Energy Minister George Smitherman insisted that bidders submit fixed-price, full-cost bids for new nuclear units to be built at Darlington. As the *Toronto Star* described it, the minister had “sticker shock” when he opened the one and only fixed-price bid submitted, which was 3.7 times higher than the cost forecast by the Ontario Power Authority. Suddenly, the province wasn’t in a big rush to build new nuclear reactors, which only made sense given that electricity demand was actually falling (see Appendix D).



It was another example of the OCAA's savvy campaigning. By forcing the nuclear industry to come clean on costs, it had made the approval of new nuclear units politically unpalatable.

For the OCAA, it was important to break the silence on the real cost of nuclear in order to level the playing field for other options, from renewable power and conservation to CHP. But not everyone agreed with this strategy. Dave Harvey, for example, says the OCAA's focus on the need to shift away from nuclear as well as coal was a distraction.

"It made some people in government say: 'Environmentalists always want more.'" Overall, he says, the OCAA's focus on nuclear "overshot the argument and weakened the strong consensus on coal that had been carefully built."


Certainly, the OCAA's position created some discomfort for a government that was strongly supportive of nuclear power and that saw it as a core high-tech industry for the province, despite the fact that sales of Candu reactors had dried up years before and that worldwide demand for nuclear was already in decline even pre-Fukushima.

But despite pushback from government, the OCAA continued to message that the government needed to fundamentally reorder its energy priorities, and started to push the concept of the "conservation first" planning principle.

In 2011, it published *An Energy Efficiency Strategy for Ontario's Homes, Buildings and Industries*. The report outlined the tremendous upside of adopting an aggressive energy-efficiency strategy for

the province and provided a practical roadmap for the steps the province needed to take to really build its long-promised "culture of conservation".

A major opportunity to enact many of these recommendations came with the government's release of its proposed new conservation strategy in 2013, part of the Long Term Energy Plan development process. The plan was, much to the delight of the OCAA, titled "Conservation First" and included many of the key elements, including a larger role for utilities and municipalities instead of one-size-fits-all centralized programs, that the OCAA had been calling for.



For the OCAA, it was important to break the silence on the real cost of nuclear in order to level the playing field for other options, from renewable power and conservation to CHP.

It was not an achievement that drew quite the attention of the coal phase out, and there is still a long road ahead toward implementation, but the Kathleen Wynne government's recognition of the need for better balance in energy planning marked another major achievement for the OCAA.

The OCAA has also pushed the Ontario government to end a long policy of electricity separatism when it came to importing power from Quebec. The Ontario energy bureaucracy's belief that power generated in Ontario is somehow superior to imported power has long dominated decision-making in the province. But the OCAA once again made a simple compelling economic case — power imported from Quebec would be significantly cheaper than power from rebuilt reactors and Quebec needed new export markets. As well, greater integration with Quebec would allow Ontario to “firm up” its growing renewable-power supplies by essentially using Quebec's reservoir system to store Ontario wind and solar power.

In November 2014, Premier Wynne took the first step toward ending electricity separatism by signing a deal with Quebec to exchange up to 500 megawatts of power annually.



Big results

The coal phase out wasn't perfect. As Steve Gilchrist notes, gas replaced a significant amount of coal capacity leaving the province still dependent on a less polluting fossil fuel. The province still relies heavily on gas-fired peaker plants instead of peak-demand reduction incentives, although it has adopted time-of-use pricing and some industrial/commercial demand-response efforts are showing good progress. So while electricity-sector emissions have been cut dramatically, they certainly haven't been eliminated.

But the coal phase out fundamentally demonstrated that we can make the large systemic changes that are necessary to deal with climate change and air pollution. "People have a false view that the system we have is the system we must have," says David Anderson. "Industry claimed coal was essential, but that turned out to not be the case. It is rigid thinking that is the problem; the system is actually quite flexible," he adds.

Anderson points out that no one fully foresaw the dramatic changes that "fracking" would bring to the business of extracting oil and gas. Yet the technology was adopted and deployed at lightning speed, leaving regulators scrambling to catch up. To Anderson, it is a paradox that we accept that conventional oil-and-gas development can change rapidly, yet refuse to believe that renewable energy or conservation technologies can similarly transform our energy landscape.

He thinks vested interests are really the story, not the ability of systems to adapt. "We were blindsided by anti-climate change campaigns," he says of the Chrétien government post-Kyoto. "Oil and gas and U.S. interests did not want Canada to show leadership on this issue," he says, adding "I was surprised by people's refusal to look at alternatives."

That frustration remains for Anderson, who says that Canada's future is still ours to choose. "We are not wedded to tar sands. We are not wedded to pipelines. Things can change quickly. We can see it in one direction, like with fracking, but not in the other" — like our ability to reduce emissions.

For his part, Bruce Lourie comes back to the winning conditions on coal, noting the solutions were “not prohibitively expensive and alternatives were relatively plentiful.” It was smart, he says, to get all parties to commit to the idea and not make it a case of friends versus enemies. This universal endorsement “just proved the political popularity” of the idea, he notes.

Gibbons adds that the OCAA made a point of being strictly non-partisan — willing to criticize any political party that wasn’t on board with a quick phase out and ready to praise any that were. In fact, Gibbons made a habit of attending fundraising events for candidates from all four parties, where he usually found himself to be the only environmentalist in the room.

The popularity of ending coal use was due in part to the way the idea was presented, Lourie believes. The idea of a “phase out” was much more believable — and realistic — than an immediate shutdown, he says, adding “you can’t just turn things on and off in the electricity system.” He does acknowledge, however, that it was very important “to hold the government’s feet to the fire” even after the initial commitment to a phase out had been made.

The OCAA was fortunate to have a funder — the Toronto Atmospheric Fund — that continued to support its efforts well after the initial phase out promise had been made, while other funders came on board to help it spread the message about the elements of a cleaner, more efficient energy system. Having a funder that recognized the paradigm-shifting implications of the coal phase out and the need for follow through was enormously important, says Gibbons. “If we had simply walked away in 2003 after hanging up a ‘Mission Accomplished’ banner, I don’t think we ever would have seen the coal plants go cold in Ontario,” he notes.

Lourie also reiterates the idea that taking time to “do it well” is important to defuse any perception that a change “is being shoved down people’s throats” and to avoid creating a backlash. In this case, “doing it well” meant ensuring system reliability and maximizing emissions reductions by choosing the best replacement options. Lourie believes Ontario has come very close to achieving this outcome with the coal phase out, saying “reliability trumps everything in electricity, but the sweet spot is reliability, price and sustainability combined. Ontario is as close as anyone to being in that space now.”



Having a funder that recognized the paradigm-shifting implications of the coal phase out and the need for follow through was enormously important.

In the end, the OCAA's projection that the province could keep the lights on without coal by 2010 proved to be an accurate assessment (see Appendix D). While it took until 2014 to formally end the coal era in Ontario, coal had become a minor factor as early as 2011 when it accounted for less than 3% of Ontario's electricity production, a level it would never exceed again.

The political consensus around the coal phase out didn't just appear overnight, however, Sara Bjorkquist notes. She points out that the OCAA worked incredibly hard to build "a strong and clear and logical argument with such a broad base of support" that it became "hard for any politician to say it was not a good idea.

"The precision and detail to back everything up was incredibly important," she adds, and an OCAA strength. However, in the early years of the campaign, she reports that despite the strong case built by the OCAA, "it felt like the political leaders were so far behind where people wanted to go. It took a few people to step up and commit and then others followed." People like Anderson and McGuinty, who were among the first to embrace a quick phase out, and people like Dr. Sheela Basrur from Toronto Public Health and Dr. Ted Boadway at the OMA who spoke out about the urgency of the health situation.

It was also important not to be distracted by red herrings such as scrubbers or the question of cross-border emissions, says Boadway. When the issue of the impact of imported emissions versus domestic came up, he says, the answer was always "well, just look at the data. We have to do our part, and it is significant." Similarly with scrubbers, he says, it was a simple question of effectiveness. Was this a viable solution or just a Band-aid? And if it was the latter, it was time to move on. The point, he says, was that the coal plants were having enormous health impacts and had to be dealt with. They couldn't simply be ignored while we shifted the blame to our neighbours.

In April 2014, Toronto Public Health reported that since 2004, premature deaths due to air pollution in the city had fallen by 23% and hospitalizations had fallen by 41%. This was despite an increase in economic activity, population and traffic in the city. Air pollution is far from a thing of the past in Canada's biggest city, but smog precursors like sulphur dioxide and nitrogen oxide have all fallen significantly since 1999.²⁶

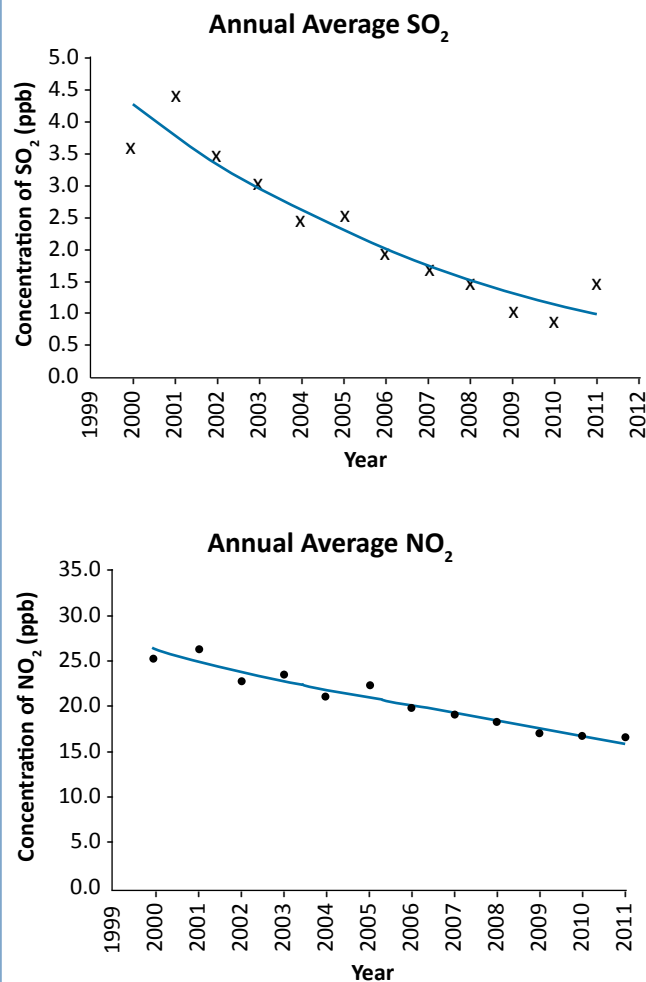
Similarly, the coal phase out is recognized as having contributed roughly half of the GHG-emission reductions needed for Ontario to meet its 2020 climate targets. The OCAA calculated early on in the campaign that shutting down coal would be the equivalent of taking more than seven million cars off the road and it remains one of the single largest actions taken anywhere to address climate change.

These real-world results are part of the reason that the coal phase out simply became “motherhood” in Ontario, says Dave Harvey. “The public now takes the coal phase out for granted — they’ve accepted it and moved on,” he notes.

In fact, the idea that coal simply must go is spreading fast, Lourie says. “I think coal will fade out in electricity generation over the next generation” due to a combination of rising pollution-control costs, carbon risk, low gas prices and aging plants that can’t be rebuilt at any reasonable cost. “It will be harder in coal-mining districts,” he thinks, “but elsewhere, it’s a no-brainer.”

And that may be the greatest testament to Ontario’s leadership: An idea that was once perceived as radical and cutting edge is now seen as just simple common sense.

Trends in ambient air pollution levels for 2 common air pollutants in Toronto



Source: Based on annual Air Quality in Ontario reports produced by the Ontario Ministry of the Environment. Prepared by: Toronto Public Health



The OCAA model

The scale of the results achieved by the OCAA would suggest the work of a large and deeply resourced organization, but this was far from the case. The OCAA is, in fact, an extremely lean organization with only two full-time staff members and a modest annual budget.

Its success was a result of a few factors. The first was focus. Formed with the purpose of pursuing the coal phase out, the OCAA was relentless in both promoting this goal and tracking its implementation. The second was the perception that as a broad coalition of organizations, the OCAA represented a broad spectrum of people and interests in the province. Particularly in its early days, the OCAA always made a point of emphasizing that its member organizations represented some six million Ontarians.

The third factor was powerful allies such as former Mayor Hazel McCallion and the Ontario Medical Association, who gave the OCAA credibility and amplified its message.

But the OCAA's success was also a result of savvy strategy — pounding home a message about the dangers of coal while presenting a cost-effective and compelling alternative. The depth of experience of OCAA Chair Jack Gibbons made this alternative very credible to both politicians and the public and Gibbons' number-crunching nature made it hard to paint him or the organization as some fringe group out to wreck the provincial economy.

The OCAA was also highly disciplined in its messaging, never missing a chance to demonize “dirty coal,” mention its huge health costs, or point to a simple-to-understand solution. The key here was repetition, repetition, repetition until the OCAA's message lines had saturated media coverage and public perceptions of coal.

The OCAA also formed deep relationships with a handful of outside consultants. Brad Cundiff of Green Living Communications (author of this report), guided its communication efforts from 2000 onwards and has always made the most of the OCAA's strength in identifying sweet spots for effecting change. Media consultant David Oved's efforts in the 1990s and early 2000s to build media interest in the story, along with his expert government relations assistance, also helped to set the stage for a successful campaign. And Sarah Rang used her research skills to fill out the health side of the coal story in vivid detail.


But perhaps the most important ingredient in the OCAA's success was never underestimating opponents or taking success for granted. In particular, the organization knew that while, other than the Power Workers' Union, no organization had attempted to launch a large public-facing campaign to save coal, there was no doubt that entrenched interests both inside and outside government were strongly asserting the need to keep coal plants burning.

This is why the sequential decisions to delay the phase out were so troubling to the OCAA. It knew that delay was a classic tactic to slowly strangle change and it suspected that much of the political hand-wringing about difficulties was really just a response to internal opposition to things like stronger conservation and peak-demand reduction programs, use of more decentralized generation sources, and an increase in renewable-energy development. It also suspected that many in the energy bureaucracy quietly supported OPG's plans to export coal-fired electricity and to keep the plants operational until they were essentially too worn out to continue operating.

By documenting again and again post-2010 the lack of need for coal to meet the province's supply needs and the growing cost of keeping increasingly underused coal plants operating, the OCAA kept the pressure on for a full and complete phase out.

The OCAA also used the years between the delay announced in 2006 and the final shutdown of most of the fleet in 2013 to campaign for a cleaner, more responsive and modern electricity system. It saw this work as crucial to building on the opportunity created by the coal phase out and it is continuing on this path today, in particular by presenting Quebec water power imports and other more decentralized electricity sources as an alternative to a return to the nuclear-dominated status quo whose failure led to the surge in coal use in the 1990s.


The "long tail" of the OCAA campaign is really unique among environmental campaigns. The classic model has been for environmental non-governmental organizations to press for new legislation or policies and then be left watching, often helplessly, as government fails to properly implement (or resource) the new approach or backtracks on prior commitments. At best, this model has been a "two steps forward, one back" exercise and all too often has led to a "back to square one" result.



Perhaps the most important ingredient in the OCAA's success was never underestimating phase out opponents or taking success for granted.

There are a couple of simple reasons the OCAA campaign differed. The first is funding. The Toronto Atmospheric Fund, in particular, saw the need and value of the OCAA's ongoing efforts to effect a transformation in Ontario's energy approaches. Other funders, such as the Echo (formerly EJLB) Foundation, the Helen McCrae Peacock Foundation, and the Taylor Irwin Family Fund, also stepped up to help with this work. Early funding from the Laidlaw and Metcalf foundations, meanwhile, helped to build unstoppable momentum for the coal phase out idea.

The second factor was the OCAA's own unrelenting focus on never letting its foot off the gas until the coal phase out was truly complete, while also working to ensure the province would never need to turn back to coal again.



OCAA was unrelenting on never letting its foot off the gas until the coal phase out was truly complete, while also working to ensure the province would never need to turn back to coal again.

For its part, the OCAA took a very “realpolitik” approach to presenting alternatives to coal. While supportive of the province's efforts to build new renewable energy sources, it never pointed to solar panels or wind turbines as an alternative to coal. The feeling was these sources (at their then cost) undermined the case for the viability of the phase out and also the credibility of a plan to replace close to a quarter of the province's electricity generation capacity in five to seven years.

But the OCAA did work to improve the “winning conditions” for renewable power by working to stop inflexible nuclear plants from totally dominating the province's supply mix (and choking off further development of renewable sources) while also pushing hard for increased conservation efforts to allow green power to make up a greater share of our supply.

The organization is also nimble, shifting quickly between efforts to shape private electricity rules to campaigning for a simple phase out once electricity market privatization efforts had collapsed. Curve balls, like unexpected postponements in the phase out deadline, were quickly countered with efforts such as the call for a legally regulated phase out deadline. The organization never wasted any time developing a strong response to statements or policies it saw as counter to its phase out goal and always set these against a steady drumbeat about the dangers of coal and the need for its speedy elimination.

In terms of “bang for the funding buck” there are few successes that can match the decision to form the OCAA and push for a coal phase out back in 1997. Smart, synergistic support for organizations such as the OMA (to support development of its environmental health work) and Canadian Association of Physicians for the Environment (CAPE) ensured that key allies were in place to support the OCAA’s advocacy efforts. Also important was driving interest, research and policy support from the public health sector across Southern Ontario as well as the OCAA’s ability to support the efforts of local groups, such as Etobicoke’s Good Air, Safe Power (GASP) among other coalition members.

At the celebration to mark the official end of coal use in Ontario, held in Toronto in the spring of 2014, Premier Kathleen Wynne noted the “relentless” approach of Gibbons and the OCAA. That word really captures a campaign that got off to a fast start and won quick victories, but then slogged for close to a decade to make that early promise come true.



Jack Gibbons presents Premier Kathleen Wynne a Clean Air and Climate Action Champion award.

Yvonne Bambrick

Appendixes

Appendix A. OCAA staff and key consultants

OCAA staff



Jack Gibbons: Jack is an economist who has worked on energy policy issues for more than 30 years. He has served as an Ontario Energy Board staff member and a Toronto Hydro commissioner. As well as chairing the OCAA, he regularly appears before the OEB on behalf of Environmental Defence. In 2004, the Toronto Community Foundation named Jack one of Toronto's Vital People. Jack's fact-based approach is bolstered by his passion for creating a better energy future for Ontario. He brings a relentless intensity

to his work that is reflected in the more than 65 reports and factsheets he wrote about the value of a coal phase out and moving to a renewable energy future.



Angela Bischoff: Angela organized Toronto's first three Smog Summits, starting in 2000. Since 2008, she has been the OCAA's Outreach Director. She led OCAA's door-to-door canvass in former Energy Minister George Smitherman's Rosedale riding to stop the Darlington New Build Project. Soon after, Smitherman amended the Darlington procurement process to require the bidders to submit all-in fixed-price bids which derailed the deal. Her e-newsletters *No Nukes News* and *Greenspiration* as well as her bul-

letins from OCAA are essential reading for those interested in Ontario and global energy issues. In 2013 and 2014 she won *Now Magazine's* Best Activist Award.

Yvonne Bambrick

Consultants



Brad Cundiff: Brad has provided strategic advice and communication services to the OCAA since 2000. His company, Green Living Communications, has been involved in numerous environmental advocacy campaigns, including the Lands for Life campaign in the mid-1990s that led to a doubling of Ontario's park system. Brad has written for many of Canada's leading environmental and outdoor publications. During the coal phase out campaign, Brad worked to ensure that Jack's detailed analysis of problems and solutions was explained in a simple, accessible

way. He has edited every report and factsheet issued by the OCAA since 2000, authored hundreds of punchy e-mail bulletins, and ensured its public communications are high impact.

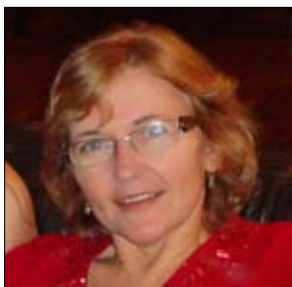


Steven Diener: A modest and well-respected energy economist, Steven was retained by the OCAA on the recommendation of Jake Brooks of the Independent Power Producers Society of Ontario to quantify the costs and benefits of building new combined-cycle gas-fired power plants to permit the phase out of coal-fired electricity generation. Steven's high-quality reports, which could not be successfully challenged by the pro-coal lobby, provided the intellectual foundation for the coal phase out campaign.



David Oved: David is a former *Toronto Sun* Queen's Park reporter who has twice served terms as an advisor to Jim Bradley during his time as provincial environment minister. During his years working with the OCAA, David secured an incredible amount of media coverage for the coal phase out issue. David also provided media advice to the Ontario Medical Association, adding to his influence on coverage of the air-pollution issue. In particular, in 1998 David persuaded the OMA to issue a news release stating that "Air pollution is a public health crisis" in Ontario. The huge

media pick-up for this statement created the opening for the coal phase out solution. In March 2000 he persuaded the *Toronto Star* to send a photographer to the McCallion-Gibbons news conference at the Lakeview Generating Station. This led to the iconic photo that appeared in the *Toronto Star*.

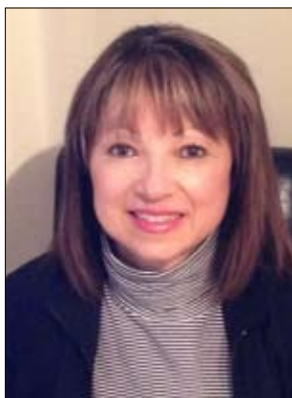


Sarah Rang: Having previously served on the staff of former Ontario Environment Minister Jim Bradley in the late 1990s, Sarah brought a lot of issue knowledge to her research work for the OCAA. Her five reports on coal plant emissions — covering everything from particulate matter and mercury to greenhouse gases — painted a picture of a wide ranging pollution problem that could only be addressed through a full phase out.

Former staff



Sara Bjorkquist: Sara joined the Canadian Institute for Environmental Law & Policy, the launching pad for the OCAA, in 1997 as a University of Toronto intern. She helped research and write *Electricity Competition and Cleaner Air*, an early call for coal-plant emissions to be lowered and capped. Her brilliant work and extroverted nature made her a natural Vice-Chair of the newly launched Clean Air Alliance. In January 2000, she left to join then federal Environment Minister David Anderson's office. Six months later, at the Toronto Smog Summit, Anderson called for a full phase out of Ontario's coal plants.



Mary Louise Colantonio was Membership Coordinator at the OCAA in 2000-2001. Mary Louise has an Honours Degree in Environmental Studies with a Minor in Economics from the University of Toronto. She has been an elementary teacher for the last 12 years in the York Catholic District School Board. Prior to her teaching career Mary Louise worked with the Oak Ridges Moraine Land Trust. Mary Louise has always had a strong interest in sustainability and social justice and continues to help advance those goals as a moderator of the Luke 4:18 Social Justice Group in her school.



Fatima Crerar was the OCAA's dynamic Volunteer Coordinator for six months as a consensus emerged about the need to end the use of dirty coal. She has continued to be a social causes marketing innovator, going on to work with Summerhill Impact running programs aimed at changing consumer behaviour. Currently, she is an account director with Public Inc., where she works with clients to design effective social impact campaigns. Fatima is also an active volunteer, working with groups such as Environmental Defence and the Aga Khan Foundation.



Mark Singh works for the City of Toronto, managing partnerships and innovation in the Environment & Energy Division. He previously worked as the manager of Smart Commute at Metrolinx, and as the executive director of Eneract, a Toronto-based group that focused on energy use. Prior to that, he was the Communications Coordinator for the OCAA and a proud member of the team during the pivotal provincial commitment to shutter Ontario's coal-fired generating stations.



Jessica Fracassi was Ontario Clean Air Alliance's very well-liked and effective Communications and Membership Director from 2005 to 2009. She also worked with the Ontario Green Party before moving on to new endeavours.

Appendix B. Clean air and climate champions

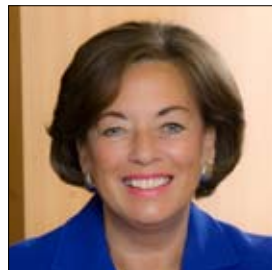
The OCAA has recognized the following individuals for their leadership:



Dalton McGuinty: As Leader of the Opposition and subsequently Premier of Ontario, Mr. McGuinty was Ontario's most important and effective coal phase out champion. As Leader of the Liberal Party of Ontario, Mr. McGuinty fought four provincial elections on a promise to phase out Ontario's dirty coal plants. In 2000, his questioning in the Legislature led Premier Harris to make the sale of the Lakeview Generating Station conditional on its conversion to gas. His September 9, 2002 promise to phase out coal by 2007 forced then Premier Eves to commit the Government of Ontario to a complete coal phase out by 2015. After he was elected Premier in 2003 he shut down the Lakeview coal-fired power plant in 2005 and issued legally binding regulations requiring the phase out of the remaining coal-fired power plants by December 31, 2014. Thanks to his leadership, Ontario achieved a virtually complete coal phase out by 2011. One of his last acts as premier was to announce that the Nanticoke and Lambton coal-fired power plants would be phased out in 2013, one year ahead of his legally binding schedule.



Hazel McCallion: The long-serving Mayor of Mississauga was a powerful champion for the cause of clean air, calling for conversion or closing of the Lakeview coal plant located on her city's waterfront. Ms. McCallion used all of her considerable influence to persuade the Mike Harris government to stop an unconditional sale of the Lakeview plant that could have led to a massive increase in emissions. Her efforts led to the Harris government's decision to close Lakeview in 2005.



Elizabeth Witmer: As a health and environment minister, Ms. Witmer understood the damaging effects of coal burning and worked to persuade her fellow government members to endorse an end to coal use. In 2001, Ms. Witmer issued a legally binding regulation requiring the phase out of coal burning at Lakeview by April 2005. In 2002 she ran for the leadership of the Progressive Conservative Party and promised to phase out coal burning at Nanticoke. Later, in 2002, when she was Deputy Premier of Ontario, the Government of Ontario promised to phase out all of the province's coal plants by 2015.



Bruce Lourie: As a long-time environmental activist and key strategic thinker, Mr. Lourie saw the opportunity to reduce toxics and air pollutants by shutting down coal. He set the wheels in motion for the coal phase out campaign and ensured that strategic pieces — such as support for the work of the Ontario Medical Association — were in place.



Dr. Ted Boadway: The highly credible research directed by Dr. Boadway at the Ontario Medical Association was absolutely vital to bringing the public onside with the need to phase out coal. Dr. Boadway's work to explain the implications of that research to policy makers and the public was also hugely valuable to the coal phase out effort.



Dr. Sheela Basrur: Toronto's Medical Officer of Health produced numerous reports that strongly advocated for a coal phase out and endorsed the OCAA's recommendations. Her reports highlighted the impact of coal burning on Toronto and drew attention to the impact of the less locally visible Nanticoke plant on local air quality and health, while also strongly supporting conversion of the Lakeview plant on the city's doorstep.



Kathleen Wynne: As Premier of Ontario, Kathleen Wynne completed Ontario's coal phase out. Premier Wynne is also pioneering two important new energy policies for Ontario, namely, Conservation First and electricity trade with the province of Quebec. These two new policies have the potential to move Ontario towards a 100% renewable electricity grid and lower our energy bills.

Appendix C. Coal phase out timeline: Key events in the coal phase out campaign

OCAA is formed. Chair is Jack Gibbons and Vice-Chair is Sara Bjorkquist. It is hosted by the Canadian Institute for Environmental Law & Policy.

Releases *Electricity Competition and Cleaner Air* report and submits recommendations to the Market Design Committee calling for emission caps as part of the rules for an open-market electricity system.

1997

OCAA emission cap recommendation endorsed by Market Design Committee. Unfortunately, the Harris government chooses not to include caps in market rules.

May 12 – Ontario Medical Association releases a report on the health impacts of air pollution, saying “Air pollution is a public health crisis.” The report details the thousands of illnesses caused by breathing bad air and recommends emissions reductions, but does not call for a coal phase out.

OCAA hires energy consultant Steven Diener to quantify the cost and emission-reduction benefits of building one new gas-fired combined cycle plant to replace some of the output of OPG’s five coal plants. Diener’s report finds that coal-plant emissions can be reduced by up to 83% at a cost of \$1.86 per month for the average residential customer.

November 16 – Press conference at Queen’s Park with Dr. David Suzuki and Jack Gibbons to release Diener report findings and to introduce the concept that coal-plant emissions could be reduced by 83% “for the cost of a cup of coffee and a doughnut a month.”

November 18 – *Hamilton Spectator* editorial calls for a full coal phase out.

1998

NDP releases election platform, which includes call to “Get tough on polluters: Ensure our children’s health by making Ontario a leader in tough environmental standards and enforcement: Implement the Clean Air Alliance’s pollution reduction targets to fight smog.”

Oracle public opinion poll commissioned by OCAA shows that 85% of voters are willing to pay \$1.86 a month to achieve an 83% reduction in coal emissions.

Opposition Leader Dalton McGuinty calls for a full coal phase out by converting the five coal plants to gas.

Ontario Hydro acknowledges it will exceed its cap on nitrogen oxide emissions by 33%.

1999

OPG announces its intention to sell the Lakeview coal plant.

February – OCAA warns Mississauga Mayor Hazel McCallion that a new private operator could increase Lakeview's output – and therefore emissions – by 400%.

March – McCallion asks OPG Chief Executive Officer Ron Osborne to commit that any sale of Lakeview will be conditional on its conversion to gas.

March 28 – McCallion joins Jack Gibbons for a press conference in front of the Lakeview plant calling for the provincial government to make Lakeview's sale conditional on its conversion to gas.

April – Toronto City Council passes a motion moved by Mayor Mel Lastman and seconded by Councillor Jack Layton calling on the province to make the Lakeview sale conditional on conversion to gas.

Progressive Conservative MPPs Morley Kells and Margaret Marland endorse conversion of Lakeview to gas.

May 17 – In response to a question from Opposition Leader Dalton McGuinty, Premier Mike Harris says that Lakeview will not be sold as a coal-burning plant.

May 17 – Ministry of the Environment announces a moratorium on coal plant sales.

May – Toronto Medical Officer of Health Dr. Sheela Basrur issues *Air Pollution Burden of Illness in Toronto*, which finds that air pollution is leading to 1,000 premature deaths in the city each year. In July, Dr. Basrur urges council to oppose an unconditional sale of the Lakeview plant and issues a report on the harmful impact of emissions from the Nanticoke plant on Toronto residents.

June – Toronto hosts the first Southern Ontario "Smog Summit." Federal Environment Minister David Anderson calls on Ontario to phase out coal at the meeting.

June – OPG promises to not operate the Lakeview Generating Station on smog alert days.

June 27 – Ontario Medical Association says "Air pollution costs Ontario more than \$1 billion per year." Report outlines the huge economic cost of dirty air.

Hagler Bailly Canada report commissioned by OPG finds the 2012 market price for electricity would equal cost of producing electricity from a gas-fired power plant. Therefore, coal plants could be phased out in 2012 without raising electricity rates.

Eliot Spitzer, New York State Attorney General, presses Madeleine Albright, U.S. Secretary of State to use Ozone Annex negotiations to press Ontario to reduce coal plant emissions.

July 7 – Toronto Public Health releases *Lakeview Generating Station – Health and Environmental Impacts*. The report finds that Lakeview contributes one-fifth of all sulphur dioxide emissions in southern Etobicoke despite operating at only 19% capacity.

August – OCAA secures endorsements for converting the Nanticoke plant to gas from the Liberal, NDP and Green party candidates running in a Hamilton-area by-election.

September – OPG announces it will spend hundreds of millions of dollars to add pollution controls to coal plants in an effort that will reduce total emissions by 4/100ths of 1%.

December – Canada and the United States sign the new Ozone Annex agreement calling for deep cuts in sulphur dioxide and nitrogen oxide emissions.

Two U.S. States (New York and Connecticut), the City of Toronto and 15 other Ontario municipalities call on federal Environment Minister David Anderson to order an environmental assessment of OPG's plan to add pollution controls to Nanticoke. Toronto Medical Officer of Health, Dr. Sheela Basrur, calls OPG's plan "inadequate."

OCAA releases *Mercury Rising: Mercury Emissions from Ontario Power Generation's Coal-fired Plants*. The report finds that while mercury emissions from almost all other sources had fallen dramatically in the previous decade, coal-plant emissions are rising.



March 26 – Environment Minister Elizabeth Witmer announces that she will issue a legally binding regulation requiring coal burning to cease at Lakeview by April 2005.

OCAA releases *Nanticoke Conversion Study*, which uses a gas-commodity price twice as high as in the original Diener report to show that despite rising gas costs, converting Nanticoke to gas is still economically feasible.

May – OCAA calls for a complete coal phase out by 2010, with Nanticoke converted to gas in 2005; Lambton converted in 2007, and Atikokan and Thunder Bay converted in 2010.

Seven U.S. states call on the director of the Environmental Protection Agency to raise the issue of converting Ontario's coal plants to gas at the Summit of the Americas conference in Quebec City.

December – Federal Environment Minister David Anderson says he will not call for an environmental assessment into OPG's scrubber plan.

OCAA files a false advertising complaint with the federal Competition Bureau in response to OPG's claims that scrubbers can make coal plants "run almost as cleanly as natural gas fired generating stations."

The cities of Kingston and Cornwall join OCAA in calling for any sale of the Lennox Generating Station, which can run on fuel oil or natural gas, to be conditional on the plant only operating with natural gas.

OCAA surveys candidates running for the leadership of the provincial Progressive Conservative party. Elizabeth Witmer and Tony Clement endorse ending coal burning at Nanticoke.

OCAA releases *Expanding Exports, Increasing Smog: Ontario Power Generation's and Hydro One's Strategies to Continue Coal Fired Electricity Generation in Ontario*. The report highlights that by 2005, coal would not be needed to meet domestic electricity demand, according to the Independent Market Operator.

OCAA runs radio ads on CFRB, puts up billboards in downtown Toronto, and distributes 85,000 pamphlets through *Toronto Life* calling for an end of coal burning at Nanticoke.

OCAA releases *Up the Stack: Coal fired electricity's toxic impact*. The report finds that Nanticoke is the single worst air polluter in Canada.

June – The Select Committee on Alternative Fuel Sources, a multi-party committee of the legislature, endorses an end to coal-fired generation by 2015, with the two northern plants closed by 2005.

September 9 – Opposition Leader Dalton McGuinty promises (on the province's 25th smog alert day of the year) to phase out coal by 2007.

September 10 – NDP Leader Howard Hampton matches McGuinty's pledge.

September 18 – The Ernie Eves government promises to phase out coal by 2015.

2001

2002

2003

OPG concedes its ads claiming a 60% drop in pollution from coal plants “could be misinterpreted.”

June 23 – Provincial Environment Minister Jim Wilson urges Ontarians to cut back on barbecue usage on poor air-quality days while calling coal plants a “small part” of the province’s air-pollution problems.

October – Liberal government elected after promising to phase out coal use by 2007.

2004

OCAA releases *Particularly Harmful: Particulates carry toxic brew from the Nanticoke Generating Station*.

OCAA releases *New Energy Directions: A Low-Cost, Low-Risk Electricity Supply Strategy for Ontario*, a plan endorsed by more than 30 energy sector companies and public interest groups.

2005

February 15 – The Kyoto Protocol climate change accord comes into force. Ontario is committed to reducing greenhouse-gas emissions to 6% below 1990 levels by 2014.

June – Energy Minister Dwight Duncan announces that the closing of the Nanticoke plant will be delayed until 2009. Duncan justifies the delay, in part, by saying it will allow time for the development of better replacement options.

OCAA releases *More than Hot Air*, which outlines the huge climate impact of Ontario’s coal plants.

OCAA publishes *Increasing productivity and moving towards a renewable future: A New Electricity Strategy for Ontario*. This comprehensive report examines how Ontario came to rely so heavily on coal and how the province could move to a 100% renewable electricity system. Specifically, it endorses water power imports from Quebec as a low-cost option to move Ontario towards a renewable future.



2006

April – Adam White, head of the Association of Major Power Consumers of Ontario calls on the Premier to break the coal phase out promise in a speech to the Toronto Board of Trade. AMPCO's call is quickly endorsed by the Power Workers' Union.

May – "An Inconvenient Truth," Al Gore's documentary about climate change, starts its North American run.

June – The Independent Electricity System Operator (IESO) issues its *Ontario Reliability Outlook Report*, which says that Ontario requires an additional 2,500-3,000 megawatts of peak power. The IESO recommends delaying the coal phase out.

June 12 – The Lakeview plant's four iconic smokestacks are blown up

June 13 – McGuinty government announces that the remaining coal plants will not close on schedule, but does not provide a revised deadline date.

July – OCAA issues its "Smog Season Getaway Calendar" featuring potential smog days and a map of the Nanticoke pollution plume.

August – OCAA distributes 20,000 copies of a new brochure during the Parkdale-High Park by-election highlighting the Liberal broken promise and the need for fast action to close Nanticoke.

September – OCAA distributes another 120,000 pamphlets calling on the government to put the phase out back on track.

November – Ontario Power Authority recommends that the coal plants continue operating until at least 2014 with additional pollution controls for some units.

November – OCAA releases *An End to Dirty Power: A real plan to achieve a true coal phase out*, which outlines a practical strategy to end coal use in 2009 at a cost increase of 1% or less. It also outlines how ineffective costly pollution controls will be.

November – Kitchener-Waterloo Medical Officer of Health Dr. Liana Nolan says any delay in shutting down coal plants will harm people in her region, adding "The trend you'll probably see across the country is municipalities leading the way, saying this is an important issue."

December – Santa and his elves meet at a monument honouring Sir Adam Beck and march up University Avenue to Queen's Park to deliver a lump of coal to Premier McGuinty.

OCAA distributes pamphlets calling for a 2009 phase out deadline in the run-up to three provincial by-elections.

OCAA asks municipalities to endorse its call to end coal burning at Nanticoke in 2009.

OCAA releases *OPG: Ontario's Pollution Giant*. The report shows that coal plants are now responsible for 40% of the province's carbon dioxide emissions from industrial sources along with a slew of other pollutants and toxics.

February – OCAA releases *Rolling the Dice: A Review of the Ontario Power Authority's High Risk Strategy to Meet Our Electricity Needs*.

March – OCAA presses the Premier to ban non-emergency coal-fired electricity exports.

April – In the lead up to the provincial election, new Opposition Leader John Tory calls for more scrubbers to be installed at coal plants.

April – Energy Minister Dwight Duncan nixes the OPA's scrubber proposal, saying it makes more sense to proceed as quickly as possible with a coal phase out.

April – New York State is joined by six other states in pressing the U.S. federal government to demand that Ontario convert its coal plants to gas.

June 18 – Premier McGuinty announces the new coal phase out deadline – 2014.

August – In response to repeated calls from the OCAA for a firm deadline, the McGuinty government passes a legally binding regulation requiring an end of coal burning at the four remaining plants by December 31, 2014.

OCAA opposes construction of a high-voltage transmission line through east Toronto, pointing out that city will be better off meeting more of its own energy needs with local generation and efficiency improvements.

2007



2008



OCAA campaigns against construction of a simple cycle gas-fired peaker plant in York Region, pointing out that peak-demand reduction programs can deliver better results at a lower cost.

McGuinty government announces that it will require a 67% reduction in coal use by 2011 relative to 2003.

OCAA releases a series of case studies of the benefits of combined heat and power systems for meeting the energy needs of hospitals, schools and multi-residential buildings.

OCAA issues *Ontario's Coal Phase Out: A major climate accomplishment within our grasp*. The report points out that by banning coal-fired electricity exports, the province can achieve a virtual coal phase out four years before the official deadline.

McGuinty government passes the *Green Energy and Green Economy Act*.

OCAA asks the government to institute a competitive procurement process for any new nuclear projects. It distributes thousands of pamphlets in Energy Minister George Smitherman's riding calling for full-cost, all-in pricing on future nuclear bids.

The Darlington New Build Project is cancelled when the fixed-price bids came in at 3.7 times the OPA's forecast.

2009



2010

The Ontario government orders OPG to cap its greenhouse-gas emissions at 11.5 megatonnes, a fraction of their previous emissions.

Two of eight Nanticoke units and two of four Lambton units are taken offline.

2011

OCAA issues *An Energy Efficiency Strategy for Ontario's Homes, Business and Industries*, which calls on the government to put conservation first in energy planning.

OCAA issues *Finishing the Coal Phase Out: An historic opportunity for climate leadership*. The report notes that Ontario's coal plants are now essentially idle and not needed to keep the lights on.

2012

Atikokan plant shut down to begin conversion to biomass.

OCAA issues *Ontario's Electricity Surplus: An Opportunity to Reduce Costs*. The report points out that closing no-longer-needed coal plants would save the province \$367 million per year.

2013

January – Premier McGuinty commits to closing Nanticoke and Lambton in 2013.

September – Lambton plant shut down.

December 31 – Nanticoke, once the largest coal plant in North America, is shut down.

The Wynne government makes a Conservation First policy part of its Long Term Energy Plan.

2014

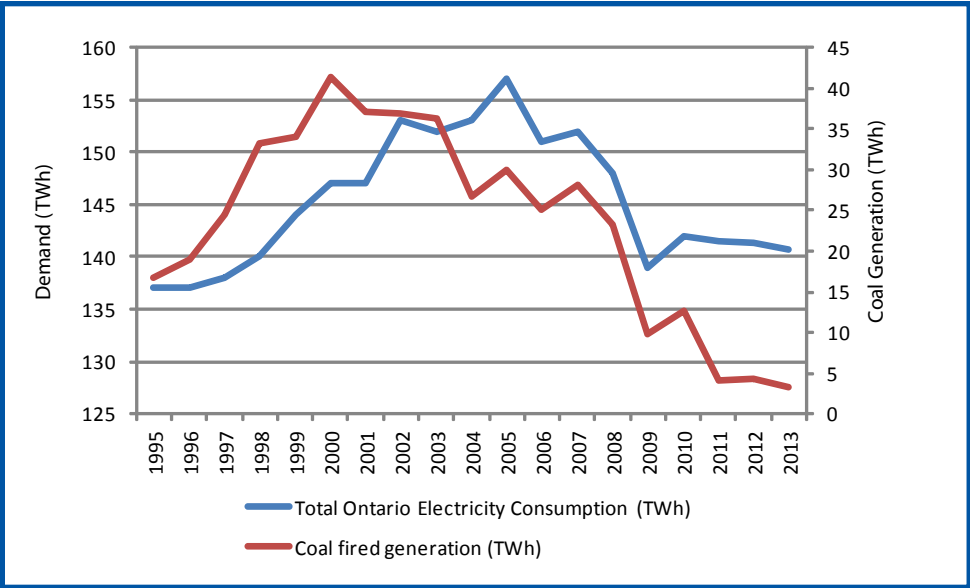
April 8 – Ontario's last coal plant, in Thunder Bay, is shut down to begin conversion to biomass.

Ontario announces it will surpass its GHG-emission reduction targets for 2014. The government notes that "Since 2007, emissions are down in Ontario by about 35 Mt (or 17%) driven primarily by the phase-out of coal fired electricity generation."

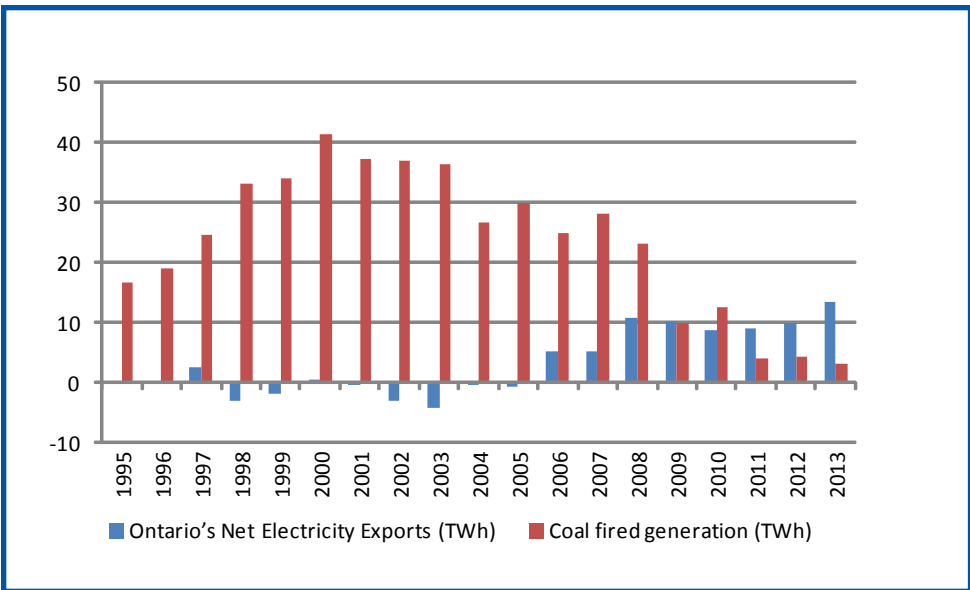
Quebec and Ontario sign a Memorandum of Understanding to exchange up to 500 MW of electricity annually and to "Investigate long-term opportunities to expand electricity trade."

Appendix D. Ontario electricity demand and exports and coal-fired generation

Ontario electricity demand and coal-fired generation



Ontario electricity exports and coal-fired generation



Endnotes

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