



April 24, 2008

Dr. Jan Carr
CEO, Ontario Power Authority
120 Adelaide Street West, Suite 1600
Toronto M5H 1T1

Dear Jan:

Re: Proposed 350 to 400 MW simple-cycle power plant for Northern York Region

On January 31, 2008 Ontario's Energy Minister, Gerry Phillips, directed the Ontario Power Authority (OPA) to contract with a private sector power company for the construction of a 350 to 400 megawatt (MW) simple-cycle natural gas-fired power plant in Northern York Region (NYR).

The Ontario Clean Air Alliance (OCAA) has been very critical of the Minister's directive to the OPA. We believe that there are lower cost, more efficient and cleaner options to keep the lights and air-conditioners on in NYR on hot summer days. On April 1st we released our report on this issue: *Too Big, Too Costly & Too Polluting: The Proposed Power Plant for Northern York Region*. I have also made numerous speeches in NYR about the Minister Phillips' proposal.

On April 22nd you sent me a letter with your response to our critique of the Minister's directive. In addition, you attached a letter dated April 15, 2008 from David Butters of the Association of Power Producers of Ontario (APPrO) to Mayor Phyllis Morris of Aurora. Specifically you wrote:

"I attach a copy of David Butters of APPrO's recent letter which addresses a number of the technical issues relating to the plant. I hope you will find David's letter both informative and educational."

The OCAA's responses to your letter of April 22nd and David Butters' letter of April 15th are as follows.

Claim - One Transmission Line

According to your letter, "this high growth region is serviced by only one transmission line today..."

For electricity planning purposes NYR has been defined by the OPA to include the area serviced by the Armitage Transformer Station in Newmarket. This area includes Newmarket, Aurora, Whitchurch Stouffville, East Gwillimbury, part of the Township of King and part of Bradford-West Gwillimbury.

The Armitage Transformer Station Service Area receives electricity from the following sources:

1. a Hydro One line from Vaughan;
2. a Hydro One line from Markham;
3. a Hydro One line from Barrie;
4. a Hydro One line from hydro-electric power plants on the Ottawa River;
5. a PowerStream line from the Keele Valley landfill power plant;
6. two PowerStream distribution lines from southern York Region; and
7. commencing in 2009, a third PowerStream distribution line from southern York Region.

Claim - The Independent Electricity System Operator's reliability standards require a new transmission line or a 350 MW power plant

The Independent Electricity System Operator (IESO) establishes the reliability standards for Ontario's electricity grid.

Your letter and Mr. Butters' letter strongly suggest, but do not actually state, that the IESO's rules require the construction of a new high-voltage transmission line or a 350 MW power plant in NYR. In fact, as you know, this is not the case.

As the OPA has clearly shown in its submissions to the Ontario Energy Board (OEB), the IESO's reliability standards state that not more than 380 MW of electricity from power plants located outside NYR should be delivered by Hydro One's existing *transmission* network to the Armitage Transformer Station. In 2006, Hydro One's peak hour delivery to the Armitage Transformer Station was 365 MW. In 2007, it fell to 359 MW. According to your October 15, 2007 submission to the OEB, these deliveries will be 338 and 350 MW respectively in 2008 and 2009 assuming normal weather; and will be 363 and 376 MW in 2008 and 2009 respectively assuming extreme weather.¹

¹ Ontario Energy Board Docket No. EB-2005-0315, Michael Lyle, General Counsel, OPA, *Northern York Region CDM Ontario Power Authority Report*, (May 31, 2007), pp. 3 – 7; and Michael Lyle, General Counsel, OPA, *Phase II Northern York Region Report*, (October 15, 2007), pp. 14 – 16.

There are at least three options for NYR to continue to meet the IESO's reliability standards as its population and economy continues to grow, namely:

1. Build a new high-voltage *transmission* line from Markham to Newmarket;
2. Build a large, energy-inefficient simple cycle power plant in NYR and connect it to Hydro One's 230 kV transmission network as the OPA has been directed to do by Minister Phillips; or
3. Eliminate the need for power supplies in excess of 380 MW from Hydro One's *transmission* network by aggressively promoting energy conservation and demand management in NYR; building new small-scale, renewable and high-efficiency natural gas-fired combined heat and power plants, and potentially a 30 MW simple-cycle plant, in NYR that are connected to the local utilities' low-voltage *distribution* networks.

According to Mr. Butters, only options #1 and #2 can meet NYR's electricity needs. As a result of Minister Phillips' directive, you are legally obliged to implement option #2. The OCAA, on the other hand, believes that option #3 is the best option for NYR. We are seeking to persuade Minister Phillips to amend his directive to allow the OPA to implement option #3.

Claim - Electricity Demand is forecast to grow by 3.25% per year

According to Mr. Butters' letter, electricity demand in NYR is forecast to grow by 3.25% per year.

Let's look at the facts:

1. In 2007, demand for electricity fell in NYR.
2. According to the OPA, the demand for electricity in NYR is forecast to fall by 2% in 2008.² In contrast, the IESO is forecasting that Ontario's province-wide peak demand will fall by only 1% in 2008³. That is, according to your authority's forecast, the percentage reduction in electricity demand in NYR this summer will be *double* the provincial average.
3. According to the OPA's forecasts, Ontario's demand for electricity will continue to *fall* each and every year between now and 2015. According to your company's forecast, in 2016 Ontario's demand for electricity will start to rise again. As a result, the OPA is forecasting that Ontario's average annual rate of electricity growth between 2007 and 2025 will be only 4/10ths of 1% per year.⁴ To the best of my knowledge, the OPA has not conducted any

² *Phase II Northern York Region Report*, (October 15, 2007), p.14.

³ In 2007 Ontario's peak day demand was 25,737 MW. The IESO is forecasting that it will fall to 25,493 MW in 2008. See www.ieso.ca.

⁴ Ontario Energy Board Docket No. EB-2007-0707, OPA, *Integrated Power System Plan*, Exhibit D, Tab 1, Schedule 1, Attachment 2, p. 1; and Exhibit D, Tab 4, Schedule 1, p. 16.

studies that demonstrate that NYR's electricity growth between now and 2025 will be greater than the provincial average, let alone more than eight times greater.

Mr. Butters' statement that NYR's demand for electricity will grow by 3.25% per year (or 8.1 times faster than the provincial average) is based on analyses conducted on or before 2005 by Hydro One, Newmarket Hydro and PowerStream. According to a research report prepared for the OPA and posted on the Ontario Energy Board's web site, these electricity load growth forecasts are out of date and fundamentally flawed.

For example, the research report prepared for the OPA⁵ states:

"The PowerStream forecast uses a trend-based method for projecting load. The annual forecast growth rate is 3.4% for 2005-2014. The principle concern about this forecast is its arbitrariness; therefore it is difficult to use this forecast as a reference for further projections." [p. 10]

"The Newmarket forecast uses a trend-based method for projecting load. The annual forecast growth rate is 3.51% for 2006-2015. The principle concern about this forecast is its arbitrariness; therefore, it is difficult to use this forecast as a reference for further projections." [p. 16]

"The growth in electricity consumption in Hydro One's service territory should be better quantified. The assumption that the growth of demand in Hydro One's service territory is the same as that of York's local distribution companies is not substantiated. An independent forecast, rather than a residual-based forecast, is warranted." [p. 25]

"None of the forecasts has come to grips with the role that electricity prices may play in determining the demand for electricity." [p. 3]

"CDM [conservation and demand management] has not been adequately accounted for in the forecasts." [p. 3]

"LDCs [local distribution companies] in York Region have not drawn upon much of the potential offered by demand response programs.

- i. Demand response programs can substantially reduce peak load demand during critical periods and can lead to longer term behavioural changes. Evaluations of existing DRPs in other jurisdictions, primarily in New

⁵ Ontario Energy Board Docket No. EB-2005-0315, Hatch Acres, *Northern York Region Electricity Supply Study Submission to the Ontario Energy Board, September 30, 2005, Exhibit B, Load Forecast & CDM Options, Appendix B, marketPOWER research report.*

- York State, indicate that they work well if properly designed and marketed.
- ii. We recommend research into the application of short term and long term demand response programs in York Region and elsewhere in the province.
 - iii. We recommend that a portfolio of pricing products should be researched for development in York Region to encourage load shifting and conservation and so that the potential of installed smart meters can be realized.” [pp. 4 & 5]

Much has changed in NYR and Ontario since 2005. As you know, Premier McGuinty is committed to creating a culture of conservation. The OPA and our local electric utilities have launched some excellent energy conservation programs including two great demand response programs: a) *peaksaver* for residential and small business customers; and b) the Rodan Energy York Region Demand Response Program for large volume commercial, institutional and industrial consumers. As a result, the demand for electricity is starting to fall in NYR.

In addition, according to the Ontario Energy Board, a recent pilot project has indicated that smart meters and time-of-use pricing may be able to reduce peak day demands by up to 25%.⁶ With strong leadership from elected officials, the OPA, Hydro One, Newmarket Hydro, Powerstream, local citizens and businesses, NYR will be able to continue to reduce its peak day demands and increase its energy efficiency as its population and economy continue to grow.

Claim - A Simple Cycle Plant's Capital Costs are Lower than those of a Combined-Cycle or Combined Heat and Power Plant

Both you and Mr. Buttters have correctly noted that the capital costs of building a new simple-cycle power plant are lower than those of more energy efficient combined-cycle or combined heat and power plants. However, these facts do not lead to the conclusion that a new 350 MW simple-cycle plant should be built to meet the peak day needs of NYR and/or Ontario for two reasons.

First, as you know, energy conservation and demand management programs can meet our peak day electricity needs at a lower cost than a new simple-cycle power plant. For example, the *peaksaver* program uses the internet or pager signals to increase the temperature setting of residential and small business air-conditioners by up to 2 degrees Celsius for up to four hours. Customers don't even notice the difference in terms of comfort, but the need for peaking generation can be significantly reduced. According to Hydro One, Newmarket Hydro and PowerStream only 11.9% of their eligible customers

⁶ Ontario Energy Board Docket No. EB-2007-0672, *Staff Discussion Paper: Regulated Price Plan – Time-of-Use Prices: Design and Price Setting Issues*, (April 17, 2008), p. 8, Table 3.

will be enrolled in their *peaksaver* programs in 2008. These utilities should be encouraged to adopt much more aggressive targets.

In addition, you have established an excellent program to pay large volume commercial, institutional and industrial customers to shift some of their consumption from peak to off-peak periods on high demand days. This program is administered by Rodan Energy and it is, by far, your most successful NYR peak reduction program. Unfortunately, you have capped the quantity of demand reductions you are willing to purchase in NYR via the Rodan Energy program at 30 MW. In addition, your payments to customers for demand reductions in NYR are *substantially lower* than your payments for similar demand reductions in downtown Toronto. These arbitrary limitations on the Rodan Energy York Region Demand Response Program are unfair and economically irrational and should be rescinded immediately.

Second, if Ontario does need additional peaking generation after coal-fired generation ceases in 2014, the lowest capital cost option is to simply convert one or more of the Lambton Generating Station's four 500 MW coal boilers to natural gas. The capital cost, per MW, of converting an existing coal boiler to burn natural gas is 80% *lower* than the capital cost of the proposed new simple-cycle power plant for NYR.⁷

Claim - The Proposed 350 MW power plant was endorsed by NYR Working Group, the Ontario Energy Board and Jack Gibbons

At the request of former Energy Minister, Dwight Duncan, the OPA established the NYR Working Group to develop a plan to meet NYR's electricity needs. The Working Group consisted of the OPA, local municipal officials, electric utility representatives and concerned citizens. As you know, the OPA appointed me to the Working Group as a citizen representative.

Mr. Butters' letter implies that in 2005 the NYR Working Group, the Ontario Energy Board and I all endorsed the construction of a new 350 MW simple-cycle power plant in NYR. None of these claims are true.

While the NYR Working Group did endorse the need for gas-fired generation in NYR, it didn't address two key issues: a) should the gas-fired power plant be large or small; and b) should the power plant be high-efficiency or energy inefficient.

In its November 22, 2005 EB-2005-0315 *Decision* the OEB did endorse the OPA's proposal for the construction of a new transformer station at Holland Junction. However, neither the OEB nor I have ever endorsed the need for a 350 MW simple-cycle power plant for NYR.

⁷ Ontario Clean Air Alliance, *Too Big, Too Costly & Too Polluting: The Proposed Power Plant for Northern York Region*, (April 1, 2008), pp. 3 & 4.

Claim - Jack Gibbons' colleagues are spreading misinformation

In your letter you state that my “colleagues” are making statements about the proposed power plant that are not true. Specifically, you allege that my “colleagues” have stated that:

- “the proposed plant will use 40,000 gallons of water an hour”;
- “the plant will emit radon gases”; and
- its exhaust stacks “will be over 200 feet high”.

Neither I nor any employee of the Ontario Clean Air Alliance has made any such statements. If you have evidence to the contrary, please provide it. If not, please do not attempt to attribute misinformation to me or to the Ontario Clean Air Alliance. You will note that in this reply, I have taken care to not attribute Mr. Butter’s erroneous statements to the OPA and have not drawn the conclusion that the OPA is directly representing APPRO’s views on this issue.

Information Requests for OPA

In your letter you state, “Responsible decision making, like reasonable conversation, requires all parties to contribute accurate information.” I agree. Therefore, could you please provide the OCAA and the people of NYR with responses to the following questions.

1. How much has the OPA spent to date to reduce demand for electricity in NYR?
2. How much is the OPA proposing to spend in: a) 2008; b) 2009; c) 2010; and d) 2011 to reduce the demand for electricity in NYR?
3. Why has the OPA capped the quantity of demand reductions it will purchase from electricity consumers in NYR via the Rodan Energy York Region Demand Response Program at 30 MW?
4. Why is the OPA paying a substantially lower price for a MW of demand reduction in NYR than it is paying for an equivalent MW of demand reduction in downtown Toronto?
5. What are the OPA’s *peaksaver* customer participation targets for NYR for: a) 2008; b) 2009; c) 2010; and d) 2011?
6. Why hasn’t the OPA re-constituted the NYR Working Group to develop a better plan to meet NYR’s electricity needs?
7. When will the OPA start to pay electricity consumers in NYR to install small-scale, high-efficiency natural gas-fired combined heat and power plants in their apartment buildings, condominiums, municipal buildings, hospitals, shopping centres or factories?
8. The Town of Georgina and the Town of Aurora are sponsoring forums on NYR’s electricity needs on April 29th and 30th. Will you attend these forums to answer the questions of NYR residents?

Conclusion

NYR includes some of the greatest communities in Ontario in which to live, work and raise a family. It lies between the Oak Ridges Moraine to the south and Lake Simcoe to the north. Thanks to their leadership, the Oak Ridges Moraine is being protected, the Greenbelt has been created and we are now working to restore Lake Simcoe's water quality and ecology. The people of NYR also want a clean, green and sustainable energy plan which will help reduce greenhouse gas emissions that cause dangerous climate change. They want to meet their incremental electricity needs by a combination of energy conservation and demand management, renewable energy and small-scale, high-efficiency natural gas-fired power plants. That is, they want a Smart Electricity Plan for the 21st century.

Unfortunately, Minister Phillips has directed the OPA to pay a private sector developer approximately one quarter of a billion dollars to build a simple-cycle power plant which will have an energy efficiency of only 36% - that is, 64% of the power plant's natural gas consumption will be simply wasted. This just doesn't make sense given Premier McGuinty's commitment to create a culture of conservation.

Working in collaboration with municipal officials, local utilities and concerned citizens the OPA can create and implement a clean and green energy plan for Northern York Region which will make it a model for Ontario and the envy of the world. We must not lack the will.

Yours sincerely,

A handwritten signature in black ink that reads "Jack Gibbons". The signature is written in a cursive, flowing style with a large initial "J" and "G".

Jack Gibbons
Chair

