



POLLUTION PROBE

CLEAN AIR. CLEAN WATER.

February 8, 2007

Ontario Power Authority
Suite 1600
120 Adelaide Street West
Toronto, ON M5H 1T1

Submitted via email: OPA Stakeholder Submission Form

RE: Comments on Revised Discussion Paper 3: Conservation and Demand Management

Dear Ontario Power Authority,

The following comments consider **Revised** Discussion Paper 3: Conservation and Demand Management (The CDM Paper).

Vision

Similar to Discussion Paper 6: Sustainability (The Sustainability Paper), the CDM Paper lacks vision. The CDM Paper should have used a different approach that develops a long-term vision for CDM and then works backwards to develop a series of steps, including measures to overcome barriers, to achieve that vision. This approach has been taken in other jurisdictions, providing the OPA with examples to follow. For example, The European Commission presented an Energy Efficiency Action Plan in October 2006. The Plan states, "The direct cost of our ability to use energy efficiently amounts to more than 100 billion euros annually by 2020.... It is by far the most effective way concurrently to improve security of energy supply, reduce carbon emissions, foster competitiveness and stimulate the development of a large leading-edge market for energy-efficiency technologies and products".¹ The European Union understands the sustainable economic development opportunities associated with the development of energy-efficiency technologies. Ontario should be taking advantage of these opportunities.

Successful CDM Programs in North American Jurisdictions

As noted in the Pembina Institute submission, Section 4.1.1 and Table 4.1 should be replaced with a discussion of successful CDM programs in other North American jurisdictions. Relying on anecdotal evidence ignores the OPA's own extensive in-house expertise at The Conservation Bureau. A discussion of successful CDM programs can be located on the Conservation Bureau's

¹ *Action Plan for Energy Efficiency: Realising the Potential*. Commission of the European Communities. Page 4.
See http://ec.europa.eu/energy/action_plan_energy_efficiency/doc/com_2006_0545_en.pdf.

website, including the *California State Demand Reduction Programs*, which applies California's programs to the Ontario context. There are several other jurisdictions that have achieved success on CDM initiatives, such as NYSERDA in New York State and Efficiency Vermont.² Canadian jurisdictions have also established CDM agencies facing similar barriers, such as Équiterre in Québec, efficiency NB and Efficiency Manitoba. This knowledge should be used to replace Table 4.1 to provide an explanation of how barriers have been successfully overcome in other jurisdictions.

Targets

The OPA's justification for the CDM targets used is also weakly supported or unsubstantiated, as exemplified by the following statements:

1. "It will be seen that the OPA derived average incremental costs are about 20 percent lower than those used by MKJF and Marbek in their determination of the economic potential of energy efficiency".³

No evidence has been provided to substantiate a 20 percent discount.

2. "Nevertheless, it is our assessment that, at least for the period of 2010, policy changes are not going to be as beneficial as assumed in the aggressive scenario and that we should therefore significantly discount the aggressive 2010 targets for energy efficiency. We have assumed a target equal to about 60 percent of the high scenario".⁴

Table 4.1 provides weak support for the above statement. This table is poorly constructed with no reference to literature or experience in other jurisdictions. It also contravenes the spirit of the *Electricity Restructuring Act (2004)*. The OPA highlights three government policies in the *Electricity Restructuring Act (2004)* including, "the long-term goal of the creation of a conservation culture".⁵ It is the OPA's responsibility to create a conservation culture. In contrast, Table 4.1 provides unsubstantiated evidence that illustrates why this is not possible.

As previously mentioned in Pollution Probe's submission for the Preliminary Plan, the CDM targets outlined do not represent the achievable economic potential and therefore do not conform with the spirit of the *Electricity Act (2004)*. This is an on-going weakness that has been consistently identified by a number of stakeholders.

² For further information see *Successful Strategies for Energy Efficiency – A Review of Approaches in Other Jurisdictions and Recommendations for Canada*, Pembina Institute. See <http://www.pembina.org/pubs/pub.php?id=1274>.

³ *The CDM Paper*. OPA. Page 79.

⁴ *The CDM Paper*. OPA. Page 25.

⁵ *Discussion Paper 6: Sustainability*. OPA. Page 32.

<i>OPA Targets (MW)⁶</i>		<i>Pollution Probe Targets (MW)⁷</i>	
Moderate Scenario by 2020	Aggressive Scenario by 2020	Technical Potential by 2020	Achievable Economic ⁸ Potential by 2020
2,020	7,594	24,600	12,300

TRC Test

The TRC test should be used to evaluate the feasibility and cost effectiveness of a larger number of conservation programs, such as solar hybrid electric systems leased by consumers from municipal electric utilities, than those considered in The CDM Paper. CDM measures should always be the first resource option considered. The CDM Paper does not reflect this.

The CDM Paper also does not consider the full costs of electricity generation and therefore the complete avoided costs of CDM. These weaknesses continue to be based in an ineffective handling of sustainability and the unwillingness to include environmental externalities, both from economic and health perspectives, when comparing CDM to other supply options.

A report prepared by Sir Nicholas Stern, the World Bank's former chief economist, attaches a \$7-trillion price tag to the world economy in lost output, plus the potential displacement of 200 million people from their homes due to flood or drought. It is the responsibility of governments to heed this warning and take drastic measures to mitigate and adapt to one of the greatest threats of our time – climate change. There are significant emission reductions to be made in the electricity sector. **The Public Electricity and Heat Production category accounted for 17% of Canada's 2004 GHG emissions and was responsible for 22% of the total emissions growth between 1990 and 2004 – more than any other category in the national inventory.** In 2004, GHG emissions from this category were 130 Mt CO₂ eq of this total, 128 Mt CO₂ eq were from electricity generation. Since 1990, emissions in this category have increased 37%, or almost 35 Mt. Between 1990 and 2004, Ontario contributed 8.4 Mt, which is a 24% increase.⁹ **Total electricity generation in Ontario increased 13% at the generator level and 11% at the customer level between 1990 and 2005.**¹⁰ The possibility also exists, that the aforementioned numbers are significantly less than actual emissions. Discussion Paper 7: Integrating the Elements – A Preliminary Plan presented a series of tables (Tables 3.10 – 3.14) to provide preliminary results of environmental performance. These tables lacked GHG emissions data. Nitrous Oxide (N₂O), identified as one of the six greenhouse gases (GHG) under the Kyoto Protocol, has a global warming potential (GWP) of 310 and an atmospheric lifetime of 120

⁶ *The CDM Paper*, OPA, p. 24.

⁷ *The Electricity Supply/Demand Gap and the Role of Efficiency and Renewables in Ontario*, ICF Consulting. See http://www.pollutionprobe.org/Reports/elec_supplydemandICF.pdf.

⁸ For achievable potential by category see http://www.pollutionprobe.org/Reports/elec_supplydemandICF.pdf.

⁹ *National Inventory Report 1990-2004*, Environment Canada. See

http://www.ec.gc.ca/pdb/ghg/inventory_report/2004_report/2004_report_e.pdf.

¹⁰ Extrapolated from Supplemental Documents – Load Forecast *Historical Trends*. See

http://www.powerauthority.on.ca/ipsp/Storage/26/2129_Ontario_Historical_Energy_and_Peak.pdf.

years.¹¹ Only marginal data have been collected on N₂O and no data have been compiled for more potent GHGs, such as SF₆, which has a GWP of 23,900 and an atmospheric lifetime of 3,200 years.¹² The most common use of SF₆ is as an electrical insulator in high voltage equipment that transmits and distributes electricity. The U.S. Environmental Protection Agency reports, “The electric power industry uses roughly 80% of all SF₆ produced worldwide”.¹³

Smog is also a significant challenge for Ontario. The Ontario Medical Association (OMA) released a report titled, *The Illness Cost of Air Pollution 2005*, which estimated the number of premature deaths associated with air pollution will be 10,000 people by the year 2026. Air pollution will also cost the healthcare system more than a billion dollars annually. This further illustrates the pressing need for the Government of Ontario to take action to improve the quality of air in the province. Moreover, significant co-benefits for smog reduction are associated with GHG-related emission reductions.¹⁴

The exclusion of environmental externalities when considering supply options creates an ‘unlevel playing field’, especially for CDM. The OPA states, “the TRC test measures the benefits and costs of CDM efforts from a societal perspective”.¹⁵ The TRC calculation relies on estimates of avoided costs, demand and energy savings, equipment cost, LDC program costs, equipment life and free ridership.¹⁶ However, the benefits of CDM from a societal perspective also include health benefits. The manner in which energy is extracted, generated, used and then decommissioned is a public health issue. To account for these environmental externalities the TRC Test should be replaced with a Societal Cost Test – this test is the same as a TRC Test except it incorporates environmental externalities.

Complementary Federal Programs

The CDM Paper was released prior to the Government of Canada ecoENERGY program announcements. An assessment is needed of how these programs and incentives complement the OPA’s initiatives. For example, do they allow for increased CDM performance in Ontario, and if so, by how much?

¹¹ *Emissions Trading Primer*, Pollution Probe, p. 55. See <http://www.pollutionprobe.org/Publications/emissionstradingprimer.pdf>.

¹² Ibid.

¹³ *SF₆ Emission Reduction Partnership for Electric Power Systems*, U.S. Environmental Protection Agency. See <http://www.epa.gov/electricpower-sf6/overview.html>.

¹⁴ For further information on co-benefits of GHG-related emission reductions see *The Relative Magnitude of the Impacts and Effects of GHG-Related Emission Reductions*, Pollution Probe and Rainmakers Environmental Group. See <http://www.pollutionprobe.org/Reports/cobenefits.pdf>.

¹⁵ *The CDM Paper*, OPA, p. 31.

¹⁶ *Total Resource Cost Guide*, OPA, p. 20.

Thank you for the opportunity to comment on **Revised** Discussion Paper 3.

Sincerely,

A handwritten signature in black ink that reads "Ken Ogilvie". The signature is written in a cursive style with a large, looped 'O' and a trailing flourish.

Ken Ogilvie
Executive Director

