

## **Pembina Institute comments on Revised OPA Discussion Paper 3: Conservation and Demand Management**

Prepared by Mark Winfield, Ph.D. and Roger Peters, M.Eng.

January 2007

The Pembina Institute's Comments on revised OPA Discussion Paper 3 are as follows:

We are very disappointed to see that the revised version of the paper is actually a step backward from the original. Instead of laying out a blue print for meeting Ontario's CDM objectives, the paper tries to show that even the achievable CDM potential identified by several consultants will in fact not be achieved. By equating "aggressive" with "impossible", and the "status quo" with "moderate success", OPA presents a weak and overly conservative plan for acquiring an extremely cost effective resource.

The paper includes many unsubstantiated claims and qualifiers that CDM resources are difficult to obtain, while ignoring successful strategies used in other jurisdictions that could easily be applied in Ontario and quickly make up for lost time. While stressing the need for market transformation and acquiring as much CDM resources as possible, the CDM plan does only marginally better than the status quo. An opportunity to develop a bold plan to maximize CDM resources and earn Ontarians' billions of dollars in next benefits has been lost.

The section on implementation is particularly weak. It does not describe the CDM programs already identified by the PDAG/PDOG process for implementation by LDCs, nor does it present an outline on how each sector might be addressed, the kinds of programs that might be used for each end-use, and the delivery agents to be used in each program. There is also no mention of joint programming with gas utilities or the Ministry of Energy – an essential objective for any program targeting building retrofit.

The Institute remains concerned that the overall strategy is focused on the achievement of the 2010 CDM targets as opposed to maximum cost-effective realization of CDM potential over the long term.

We recommend that the paper be revised again:

- Using an approach that acquires at least CDM resources identified in aggressive scenarios defined by consultants and analysis of successful strategies use elsewhere

- Developing a comprehensive deployment strategy that lays out road maps for each sector and priority end use

We begin our analysis of the paper with some general comments, followed by detailed comments on each section.

## **General Comments**

- The plan proposals for 2010 and 2025 (Tables 3.3- 3.6) that are hardly larger than the status quo scenario estimates by consultants and much lower than the modest aggressive scenario. There are also no comparisons with other jurisdictions where much higher results are achieved. This is hardly a bold new CDM plan that gets as much CDM resources as possible.
- The paper indicates that the economic net benefits of the \$4-5 billion in CDM activities proposed for the IPSP in terms of avoided generation and transmission infrastructure costs in will be in the range of \$5-\$9 billion, excluding avoided environmental costs. This clearly suggests that additional cost-effective CDM activities would be possible. There is no explanation provided of why no additional CDM activities are proposed for the plan, particularly given the OPA's acknowledgement that the CDM target provided in the Minister of Energy's June 2006 Supply Mix Directive is a minimum to be achieved, and that these targets are to be exceeded if possible (pg.12).
- Note also that OPA has discounted the avoided costs of generation and transmission infrastructure by 20% relative to the MJKA and Marbek studies underlying the CDM paper (pg.79) but does not fully explain this discounting. This has significant implications for the cost-effectiveness of CDM options.
- The paper suggests that the OPA pursue CDM targets that are substantially lower than those identified as achievable under aggressive scenarios in the National Study (i.e. a discount of 60% is suggested on pg.25). The justifications offered for these lower targets are poorly established. None of the justifications offered in section 3.6.6. or Table 4.1. for example cite any specific examples or literature. Many of these barriers could be overcome via CDM efforts commonly used in other jurisdictions. The scale of the net benefits identified in relation to CDM activities suggests that considerable cost-effective effort could be put into overcoming these barriers.
- The Pembina Institute also reminds the OPA that the 'aggressive' scenario investigated in the National Study was based on policy assumptions whose 'aggressiveness' is open to serious challenge. The Pembina Institute's comments on the National Study, which have been previously provided to the OPA, provided examples of situations where the study identified as 'aggressive' standards measures that were already in place.

- The paper fails to provide an explanation of why the relatively large total energy potential for self-generation (estimated at 9.18 TWh by 2025 under an ‘aggressive scenario – Table 3.1) will only provide 260 MW in peak savings (Table A). The actual 2025 plan target for self-generation is 2.33 TWh or only 25 % of identified potential. No explanation is offered as to why the target for self generation remains so low.
- OPA assumes the impact of fuel switching on peak demand is almost entirely in the winter months (pg.30). This may be a valid assumption in relation to space heating, but may be less relevant with respect to water heating, which is required year round.
- The paper notes that the savings potential likely underestimate the potential for energy efficiency improvements in the industrial sector (pgs 19 and 60), due to features of the CIMS model, but does not propose a strategy to investigate what the actual potential savings might be. This is a significant oversight, as in addition to contributing to an underestimate of the overall potential cost-effective savings in the industrial sector, savings in the industrial sector would offer significant co-benefits in terms of improved competitiveness for Ontario industry.
- .

## **Section By Section Comments**

No comments are provided for the Summary which we hope will be re-written once a final version of the paper is completed

### *Section 2 Approach and Strategy*

- (2.2.1 first bullet page 12). If OPA is committed to securing as much CDM resources as possible, than as well as filling the supply-demand gap, CDM resources should also be used to achieve strategic objectives such as phasing out coal and other environmental goals
- (2.2.1 last bullet page 13) Strong foundations are indeed necessary, but this should explicitly include reference to building a CDM base to achieve market transformation and 2020 objectives
- (2.2.2 last bullet page 13) The term “solar panels” is ambiguous and there should be other examples of self generation mentioned including micro-turbines. Suggest using solar photovoltaic power systems and micro-turbines. There should also be a reference to excess power being supplied to the grid through next metering

- A sub-section should be added to section 2 describing how OPA CDM programs will contribute to market transformation. This would then be taken up again in the deployment section.

### *Section 3 Resource Plan*

The approach used in section 3 should be completely revised with the objective of developing a strategic CDM plan to maximize CDM resources and achieve at least the identified achievable potential

- (section 3.1) The top of page 17 is the first time where OPA starts to back away from achievable potential with no justification. Consultants studies provided OPA with an estimate of how much of the economic CDM potential could reasonably be achieved with a few “aggressive” policy measures. If OPA is to achieve as much CDM as possible then it should develop bold strategies and programs to at least achieve this potential – more if possible. There are many examples of these bold measures used commonly in other jurisdictions. Rather than proposing to emulate them, the paper does not even acknowledge them, instead weakly saying “it may not be easy to implement all the [few] policy instruments that are assumed in the aggressive policy scenario”. Not only have some of these policies such as standards already been implemented, many others like financing were not even included in the aggressive scenario by consultants.
- Further down on page 17, the paper then introduces issues such as transmissions and local acceptability. These were either already taken into in the achievable potential or are easily addressed with good CDM programming, and therefore are not relevant here.
- (section 3.2) A table providing economic potential in each sector should be placed here to allow later comparison. It should also be noted that CIMS is not very effective at estimating conservation, fuel switching and cogeneration potential.
- (section 3.3) The implication that the aggressive potential scenario is driven by “an aggressively backed schedule of legislatively backed advanced minimum energy performance targets” is completely false. Many of these changes have already been agreed to! The implication that “an aggressive schedule of subsidies for renewable energy technologies” was also used is also false. (page 17). The Aggressive Achievable potential scenario includes only a small number of financial and other instruments used in other jurisdictions, and is therefore in no way a “high” case for any CDM plan.

#### NOTE REGARDING SECTIONS 3.3 and 3.4

- In the previous version of Paper number 3 there was significant and useful discussion about achievable demand management fuel switching, self generation and conservation. Some of this now appears in appendices but a lot seems to have been lost.
- (section 3.6) The paper here introduces the false assumption that the moderate and aggressive scenarios represent respectively low (easy) and high (very difficult) estimates of what can be achieved. In fact the aggressive scenario provides only one example of what could be achieved through CDM programming. Why make this the high (difficult) end of a range when the objective is to achieve as much CDM as possible! As noted before, the OPA should be designing a CDM plan that maximizes CDM and overcomes barriers – not a weak plan the is “comfortably within the range”
- The proposed weighting system used in the original version of the paper was designed to set priorities for programs. While flawed the objective was sound. The new approach does not set priorities but rather reduces the potential. It is therefore not equivalent
- (section 3.6.1) The achievable potential scenario was meant to estimate how much of the economic potential was feasible. To introduce feasibility again is double counting. There is also absolutely no justification or reference provided for the 60% discounting of the achievable potential.
- (section 3.6.8) This sub-section is full if unsubstantiated anecdotal issues. There is no justification for using estimates that are “considerably short “ of achievable potential – particularly as the CIMs model purports to take these into account already. In addition, a straight forward financing program eliminates all barriers related to high first cost..
- (section 3.7) On Page 30 the term “high” is used again to describe the achievable potential under the “aggressive” scenario. Moderate is used to describe the status quo! This is misleading and again implies that aggressive is an impossible goal, and status quo a moderate achievement.
- The plan proposals for 2010 and 2025 (Tables 3.3- 3.6) are much closer to the moderate status quo estimates than the aggressive scenario. This is hardly a bold new CDM plan that gets as much CDM resources as possible. There is also no indication how the figures for each category were estimated.

#### *Section 4 Program Design and Implementation*

This section needs to be greatly strengthened – including sub-sections on PDAG process results to date. Draft plans for each sector should also be included showing how programs delivered by different agents, standards, codes, joint programs with gas utilities would be used to achieve transform each end use market and meet and surpass CDM targets.

- (section 4.1.1). This subsection and Table 4.1 are completely unnecessary and should be replaced with one on successful strategies being used elsewhere in Canada and the US. The paper (in Table 4.1) presents barriers that common CDM programs are designed to remove as though they were reasons why CDM programs should be expected to fail. The text also references “anecdotal” evidence about lack of customer investment in CDM as though they are reasons for failure rather than the reason that CDM programs are used in the first place. Again there is no reference to or review of programs used elsewhere and how they have successfully addressed barriers.
- (Section 4.2) There is no mention of programs being delivered by gas utilities and other delivery agents. These all need to be added as they are as important as current OPA programs for the success of the plan.
- (section 4.3). A lot of work has been done by the PDAG and PDOG to design five new programs for LDC delivery. These should be detailed here. There also needs to be extensive additions showing how each sector and priority end-use will be targeted – a deployment road map for each priority sector and end-use including the strategy for transforming the market and getting the maximum CDM resource potential together with targets and milestones. Each road map should also lay out the roles of
  - OPA programs
  - LDC programs
  - Programs delivered by other (identified) delivery agents
  - Codes and standards
  - Joint programs with gas utilities and fed/prov governments

**For more information contact:**

Mark S. Winfield, Ph.D.  
Director, Environmental Governance  
Tel: 416-978-3486  
Fax: 416-978-3884  
e-mail: [markw@pembina.org](mailto:markw@pembina.org)