

TABLE OF CONTENTS

0. Introduction
1. Compliance with Directives
2. Milestones and Metrics
3. Culture of Conservation
4. The Lack of a Plan to Meet the 2015 Targets
5. Integration of Conservation
6. Flawed Execution
7. Performance Based Conservation
8. Transparency
9. Co-ordinating Electricity and Gas in CDM
10. Evaluation of and Audit of Savings
11. Resources Requested
12. Schedules

The Canadian Energy Efficiency Alliance

Final Argument

0. Introduction

In setting the Issues List for this proceeding, the Board signaled the further evolution of its thinking on how it should assess the OPA's revenue requirements submission. It stated at page 5:

"However, the Board is of the view that an assessment of the OPA's administrative fees must require an examination and evaluation of the management, implementation, and performance of the OPA's charge-funded activities. This is necessary because the OPA's administrative and non-administrative activities that are funded by fees and charges, respectively, are unavoidably linked. It is the Board-approved fees that give the OPA the means to acquire and allocate the resources (e.g., staff) that are required to undertaking its various responsibilities, resulting in charge-funded activities. The Board finds that an assessment of the performance of the OPA's charge-funded activities is a necessary, legitimate and reasonable tool for determining the effectiveness of the OPA's utilization of its Board approved fees (our emphasis).

For example, and only as an example, on April 23, 2010 the OPA was directed by the government to design, deliver and fund province-wide CDM programs. The Board approves the fees used by the OPA to obtain the administrative resources (e.g., project management resources, staff complement, etc.) required to fulfill the directive. Therefore, part of assessing whether the OPA's proposed fees are reasonable and appropriate will necessitate an examination of the effectiveness of the OPA's delivery of CDM programs. It could be the case, for example, that the programs are behind schedule or not delivering results commensurate with the fees being allocated to CDM activities. In this case, the Board could reject the OPA's proposed fees and recommend that the OPA return with adjusted proposed fees that allow for higher or lower staff levels or more robust internal control mechanisms as the circumstances might warrant."

And, later, at p 7: "The Board finds that determining whether the OPA's proposed initiatives are consistent with and directly related to its mandate and obligations is a matter of relevance for this proceeding."

CEEA is fully supportive of the Board's approach, as described above. Mr. Cass has tried to reargue the Issues List in his Argument-in-Chief. This approach, in CEEA's view, is inappropriate. He had the opportunity to make the jurisdictional points on Issues Day. The Board, in its decision, clearly defined the scope of the hearing. In addition, the Board has been vigilant throughout the hearing to ensure that the hearing did not veer off-course. CEEA believes it has drawn the line fairly, and appreciates the Board's efforts in this respect.

CEEA is of the view that the OPA has largely failed to realize its CDM mandate. It has largely ignored critical early directives on CDM, failing to reach established CDM targets, failed to adopt meaningful milestones and efficiency metrics through which its management can be held accountable, adopted an overly prescriptive approach in dealing with third parties, including the LDCs, produced a wrong-headed incentive for LDCs in the joint program with them, and when confronted with incontrovertible evidence that such scheme was inconsistent with the incentive to increase savings in the CDM Code, refused to admit its mistake. It has adopted an operating style which is overly secretive, and combative, which seems to reflect the "it-must-be-invented-here syndrome".

All this, notwithstanding a set of Guiding Principles (A-2-1, p 8), which emphasizes Transparency "we carry out our work with openness and integrity", Accountability "we can be held accountable for our decisions", and Collaboration "we encourage and reward the contribution of everyone on the team, communicating and celebrating our successes clearly".

Rather than transparency, the OPA behaves secretly. Rather than stressing accountability, it designs metrics and milestones that are self-fulfilling or are vague to the point when no objective third party can say whether they have been met. Rather than collaboration, it offers micromanagement, inflexibility, and arrogance.

CEEA will support these conclusions in the remainder of this argument.

1. Compliance with Directives

The OPA has picked and chosen the directives with which it wishes to comply. It has clearly not complied with several of the important early CDM directives, some issued as early in 2005 and mostly in 2006, none of which have been withdrawn and all of which are still outstanding and legally binding on it. This neglect contributed to the OPA's very slow, poor start to fulfilling its CDM mandate, the consequences of which are still being felt in 2011 and will be felt for several more years. This is a fundamental failure in accountability. It seems clear to CEEA that the principal reason for this failure was the lack of interest in, and commitment to, CDM, on the part of the first Chief Executive Officer of the organization. More specifically, the OPA did not comply with the six directives listed in I, 7, 9, p.2, Table 1.

These are:

1. Toronto Reliability Supply and Conservation Initiative, February 10, 2006.
2. Conservation and Demand-Side Management Initiative (Residential Sector), March 10, 2006.
3. Conservation and Demand-Side Management Initiative (Institutional/Commercial Building and MUSH Sector), March 10, 2006.
4. Conservation and Demand-Side Management Initiatives (Residential Low-Income and Social Housing), October 6, 2005.
5. Lighting and Appliance Change Out Directive, October 20, 2005.
6. LDC-CDM Funding Directive (July 13, 2006) "Co-ordination of LDC Activities to deliver Conservation and Demand-Side Management Program".
7. The Minister's Letter to the OPA dated November 2006.

For convenience, and because, for some reason, the Minister's Letter (not a directive) to the OPA dated November 2006 was not identified in the list provided in A-5-1, we have included copies of this document in Schedule 1 to this Argument.

All of these directives dealt with initiatives launched in 2004-2006 by the Ministry of Energy. These directives were issued by the Minister pursuant to section 25.32(4)(a)(i) and (ii) of the Electricity Act, which authorized the Minister to issue a directive to the OPA to assume responsibility for any initiative pursued by the Crown, that was initiated after January 1, 2004, that relates to reduction in electricity demand or to measures for the management of electricity demand. The intent of the directives was that the OPA implement these nascent programs and, assume responsibility for any existing contracts, and continue that work. For the most part, the OPA did not do this.

The results in every case have fallen well short of the megawatts the Minister wished to achieve; in some cases, dramatically lower.

The Table on page 2 of I. 7, 9, which records the results to date, is attached as Schedule 1.

The Toronto Directive (#1 above) states, in part: "So (after receiving the joint letter from the IESO, Hydro One, Toronto Hydro, and the OPA), the Ministry began the process of expanding its Toronto focused conservation initiatives begun under the Conservation Partnerships Program. The expansion seeks up to 300 MW of demand side management and/or demand response initiatives in the Toronto area by 2010. The subject matter of the expansion is the basis for the directive to the OPA".

While this directive and the others, speak of "up to" a specific number of MWs, sometimes by a specific date, it is clear from the purpose of the directives and context in which they were issued, in particular, the fact that these six directives were issued to transfer specific named initiatives to the OPA from the Ministry, and that in the case of the Toronto directive, the fact that an urgent need for reduced demand/additional generation had been conveyed to the Minister by the IESO, that the Minister wanted savings of about the indicated amount. In the case of Toronto, the Minister also directed that the savings be achieved by 2010.

The OPA's contention (I, 7, 9) that the amount of 300 MW in the Toronto region was merely an authorization to procure up to that amount is wrong. The directive includes the authority but also sets a target.

The OPA's argument suggests that the OPA could comply with the directive by generating, say 20 MW out of 300. Given the purpose of the directive, noted above, the argument is not persuasive. The OPA witnesses were unable to answer the question as to whether OPA senior management had sought clarification from the Minister on the intent of the directive. One would have thought that, before deciding to make only token efforts in respect of meeting some of the directives, conversations would have been held with the Minister and senior Ministry officials.

A more dramatic example of the failure to take a directive seriously is the experience with the low income directive (# 3 above) where, after 5 ½ years, the OPA has achieved 3 out of 100 MW of desired savings. At this rate, it will take 100 years to reach the approximate target. Obviously, the OPA chose to ignore the directive.

This, notwithstanding the fact that a low income CDM program, had been considered a high priority by the government, as it was the first priority of the Conservation Task Force, chaired by the Hon. Donna Carsfield, at the time the Parliamentary Secretary to the Minister of Energy (later the Minister of Energy). The OPA apparently has launched a low income CDM program last week, some 5 ½ years from the date of the initial directive.

Under cross-examination, the OPA stated that savings from other programs were "booked" against some of the directives. This admission was surprising and disturbing, as it describes a lax of management and failure of accountability for results from the directive.

The OPA points to footnote 2 to the Table 2, on page 2 of I. 7. 9 and suggests that, for example, the 27 MW recorded in the table as having been achieved by the commercial/institutional initiative could be buttressed by savings achieved by the \$400 million OPA/LDC initiative which was the subject of directive #6. However, directive #6 makes no reference to the fact that savings achieved by the LDC program it was intended to fund would be used to satisfy the earlier directives. Second, it was for LDC programs, not OPA programs. In any event, the OPA has offered no evidence of the savings achieved by the LDCs from programs funded through the \$400 million. In fact, rather than transfer the funds to the LDCs to develop their own programs, the OPA developed programs and invited LDCs to apply for funding from the \$400 million pot, which it continued to control, to implement programs which the OPA had designed. It appears to have effectively "hijacked" the LDC program.

Finally, the subsequent letter sent by Mr. Duncan to the OPA in November (#7 above), while supportive of the program initiatives the OPA had launched, does not suggest that such programs could be funded from the \$400 million allocated via the July directive to enable the LDCs to continue with their own conservation programs. That money was supposed to be allocated to the LDCs. Instead, Mr. Duncan notes that earlier directives were sufficient to fund the OPA's programs in this regard.

The OPA also failed, by substantial margin, to meet the targets for the Residential CDM program (#2) and the Lighting and Appliance Change Out Directive (#5).

2. Milestones and Metrics

The OPA must use true results-based milestones to monitor progress towards its energy and demand savings objectives, and to take corrective action if the goals are not likely to be met.

There are very few, if any, such milestones in the OPA's evidence, either for 2011 or the planning period (2011-2013).

The Board is well aware that milestones are a tool that management of an organization uses to determine the progress it has made towards the objectives it has committed to achieve. If a milestone is achieved, it is a sign that the project is on track to meet its intended result. On the other hand, if it is not achieved, it is a warning signal that unless some remedial action is taken, the organization will likely not achieve its objective.

Milestones are an important component of organizational and managerial effectiveness, efficiency, and especially accountability, both of the organization as a whole, and its senior management, and the management of its various divisions, and subdivisions. Without proper milestones, neither the OPA senior management, its Board of Directors, or the OEB can know what value the OPA is providing for the ratepayer funds it has spent, and whether additional value will be achieved by spending the new resources it seeks.

Milestones must be:

- sufficiently specific so that one can determine whether they have been met, or not.
- sufficiently challenging to motivate employees, but not so difficult as to be virtually unattainable.
- be multi-year, at least over the term of the planning period or over the term of the program, for example, the OPA Contracted Province-Wide LDC program, or the industrial accelerator program.
- result in positive or negative consequences for management's compensation or tenure, particularly if their milestones are routinely missed.
- designed to "measure" the critical mission or results the organization is trying to achieve. In the case of the CDM programs, they must measure persisting energy savings or demand reduction achieved, not how many conversations were held, how many studies were completed, or contracts signed. They should be more "results based" than "activity based".
- should be at the initiative level, wherever possible, for greater clarity and understanding on the part of both the OPA and the Board.

OPA's milestones do not meet any of these criteria. They are overly general, do not permit one to determine whether they have been achieved or not, often relate to secondary activities rather than "mission-critical" results, or means rather than ends, are not multi-year, but are set only for the "test year", and often not very challenging (often because of vagueness).

For example, there are no true milestones setting out savings levels to be achieved by the industrial accelerator program, a key element in the OPA's portfolio of energy savings programs.

The OPA's 2011 milestone for that program states that, "(The OPA has) Delivered a suite of energy efficiency and demand response initiatives for transmission connected customers" (Ex B, 2.1, p.15).

In response to CEEA's IR #27, "why is there not a milestone for this initiative based on the performance of the program in achieving energy savings for their forty five customers", the OPA replied, "The milestones were developed as activity based, rather than output based milestones" (Ex I, T 27) and referred CEEA to the answer to a GEC question (Ex I, 2, 22), which described more activity based milestones. The above "milestone" is "activity" or "process" based, extremely vague, and not specifically linked to the stated objectives of the program. It was also likely achieved by the end of 2010, as the program commenced in mid-2010, and an identical milestone might be proposed in 2012, 2013, and 2014, in other words, for the duration of the five year program. What purpose is served by such a milestone?

The Minister's Directive (see Schedule 1) to the OPA was very specific. It declared that "the programs shall be managed to deliver a target of 300 MW of demand savings". In other words, energy savings that continued throughout the years. It laid out a number of guidelines, including:

- it directed the OPA "to undertake the responsibility for creating and delivering an industrial energy efficiency program with the objective of achieving cost effective conservation through industrial-process improvements that bring energy efficiency gains."
- it directed "The OPA shall provide incentive funding to Participating Consumers. Incentives shall be sufficient to generate attractive rates of investment return for Participating Consumers in projects that meet the objective of achieving cost effective conservation through industrial process improvements that bring energy efficiency gains. Any contract entered into by the OPA with Participating Consumers as part of the Program shall have a term necessary to ensure persisting energy efficiency gains that result from projects implemented in the two-year period."
- it directed that the program have a five year term, and that the energy savings must be guaranteed for ten years.

The annual savings forecast by the OPA in 2014 are significant, approximately 1.4 TWh, which is almost 11% of the 2015 energy savings target of 13.6 TWh.

In a program of this type and importance, it would be appropriate to have milestones that target savings achieved on an annual basis. The forecast the OPA provided in evidence should be milestones, especially when the program in question is the one the OPA is implementing with its own personnel (account executives) and which is an important contributor to the OPA's overall results, for which the Government has provided a milestone for 2015.

Efficiency Metrics (Issues 6.1 and 6.2)

There are two issues from the Issues List that apply:

- "6.1 Do the efficiency metrics submitted by the OPA provide a reasonable and appropriate basis for assessing the general performance and efficiency with which the OPA operates and delivers on its mandate?" and
- "6.2 Do the efficiency metrics submitted by the OPA provide a reasonable and appropriate basis for assessing changes in the scope, volume, and complexity of OPA operations?"

The answer, unfortunately, to both questions, is no, notwithstanding the fact that in its decision on the OPA 2010 revenue requirement of April 27, 2010 (EB-2009-0347), the Board directed the OPA to "include more precise and informative documentation of its performance metrics for review through the fees case process. Such an enhancement, comparable to the evidence provided with respect to the OPA's compensation payments, would enable parties to assess the extent to which the OPA has achieved its stated goals. In future applications the Board directs the OPA to report on its achievement of its metrics, sorted by Strategic Objective".

The Alliance suggests that the OPA's performance indicators, whether in the form of milestones or "efficiency metrics" do not respond to the Board's direction in EB-2009-0347, nor to the gist of the Board decision on Issues Day, nor Issues 6.1 and 6.2. How could an independent third party observer agree that the efficiency metrics submitted by the OPA "provide a reasonable and appropriate basis for assessing changes in the scope, volume, and complexity of OPA operations"? While Mr. Gabriele talked generally about having results based milestones, in fact, the OPA's milestones are mainly activity based and the efficiency metrics are almost meaningless ratios. Real milestones, as that term is used in business and government, concerns matters of program delivery: percentage of FIT applications approved within the OPA's own set targets, tracking progress against directives, and in its own conservation programs such as the Industrial Accelerator, the MW and MWh saved. For example, Economic Connection Tests were to be done every six months. Since the FIT was launched 21 months ago, no Economic Connection Tests have been done. When thousands of Ontarians have millions of dollars of their investments at stake and the province as a whole has thousands of jobs at risk, the OPA's apparent lack of concern about timelines, delivery, results, impacts, outcomes and effectiveness is astonishing.

The efficiency metrics presented are net annual renewable energy contracted under FIT and microFIT, in service generation capacity under contract, and all other generation contracted by the OPA, and annual, conservation and demand savings per FTE, respectively (C.1.1.3).

These numbers are not very helpful. They are too high a level to determine whether the ratepayers are getting efficient and effective delivery of the OPA's services, or to address issue 6.2. They are in effect a straw man, too easy to knock down. As contracts are signed for a few mid-size and large generation facilities, and placed in service, the annual increments in contracted capacity and contracted capacity in service are huge, and, since the contracts last for 20 years, the cumulative amount increases annually at very high percentage rates. FTEs, however, do not need to increase in tandem since, once contracted, the capacity is there for 20 years and demands no further procurement and very little ongoing administration. The capacity/FTE must decline, so long as contract growth increases.

The same is true for conservation, perhaps to a somewhat lesser extent. It is possible, for example, to obtain very high levels of Demand Response from a portfolio of contracts. Once in place, DR3 contracts remain for a five year period. Once the upfront work is done, the amounts of DR3 can grow substantially, without additional FTEs.

The FTEs need to be linked more clearly to the day-to-day tasks being performed by the OPA staff, whether contract management, program design, legal, IT, generation, or CDM, to determine whether each part of the organization is becoming more efficient, or at least maintaining its level of efficiency.

In addition, the OPA and the Board must be able to judge the contribution that the effective execution of generation, and CDM activities make to the overall performance of the organization, in terms of, for example, proper and timely execution of initiatives, compliance with directives, responding to new government directives, moving quickly to take advantage of new technologies, change in relative costs of products, and new best practices that emerge. These factors determine how effectively the OPA delivers on its mission, and uses the resources entrusted to it by ratepayers.

A good cross-section of the weaknesses in the OPA's proposed "efficiency metrics" can be found in some of the cross-examinations of Mr. Gabriele on these issues by Messrs. DeRose, Faye, and Warren. Relevant parts of their cross-examinations, taken from the transcripts, are included in Schedule 3.

In summary, milestones and "efficiency" metrics, if properly designed, are linked, and are two ways of determining the efficiency and effectiveness of the organization. The OPA's refusal to use any savings based milestones, or specific program delivery based milestones, on the one hand, and providing very high level, impossible-not-to-meet efficiency measures on the other, makes it impossible for the OPA, the Board, stakeholders, or the public, to evaluate whether its activities warrant continued ratepayer funding.

It is helpful to compare the OPA's use of milestones with the Board's use of milestones to ensure that the distributors are on track to meet their savings targets assigned by the Board under the Minister's directive on the OPA's Contracted LDC Program.

The OEB's Conservation and Demand Management Code ("CDM Code") directs the distributors to put savings related milestones in place.

The CDM Code defines milestones in this way: "annual milestones means the forecasted electricity savings (kwh) and peak demand savings that a distributor hopes to achieve each year, in order to meet its CDM targets".

In the "strategy requirements" section, the Code states that "The CDM Strategy must include a high level description of a distributor's year-by-year plan, including annual milestones for achieving its CDM targets" (our emphasis).

It also requires, in its template for Annual Reports to the Board, "a section that summarizes the distributor's progress towards meeting its CDM Targets, an explanation of any significant variances between the annual milestones contained in the distributor's CDM Strategy and the verified results achieved by the distributor for the reporting year, and an explanation of the potential impact that the aforementioned significant variances may have with respect to the distributor meeting its CDM Targets".

Why should there be milestones, with consequences, for the LDCs to implement their Board approved, and OPA contracted programs, on the one hand, when the OPA is permitted to use milestones and efficiency metrics, that are, for the most part, meaningless?

The Board should require the OPA to set milestones that meet the above criteria in the revised budget application and in each annual application from now on.

A Red Herring

Mr. Cass, in his Argument-in-Chief, suggested that consideration of milestones was outside the Board's jurisdiction because they were mentioned in the business plan. This suggestion is far-fetched and disingenuous in the extreme.

While the OPA's milestones are mentioned in its business plan, they are also contained in the revenue requirement submission, and fundamental to the Board's decision to approve the OPA's budget. In assessing the budget proposals, the Board is assessing whether the OPA is managed, organized, funded and staffed in such a manner as to enable it to achieve its goals, which include achieving certain levels of CDM at critical points in the future. Measurement of progress towards these goals is a critical tool for the Board, through which it can hold the OPA accountable with reference to the milestones for each task. The more disaggregation with which the tasks and milestones can be set out, the better the Board can see whether progress is being made or not.

The Minister approves the business plan of the OPA in the sense that he or she endorses the general thrust of the plan and its consistency with government policy. He or she does not, and under the Act is not intended to, conduct a detailed review of progress toward specific savings targets and whether the appropriate level of resources requested, and their allocation to each component of the OPA's work plan is appropriate. That is the province of the Board, as part of its review of the OPA's budget and revenue requirement submission.

3. Culture of Conservation

The culture of conservation initiative is another example of how the OPA has no milestones to properly measure whether it is reaching its objectives and to help it spend ratepayer funds wisely.

The OPA admitted that it did not have a target point total to achieve in measuring the "culture", nor did it provide information on whether the seven criteria are weighted or are of equal weight. Undertaking J4.3 does nothing to alleviate the concern about lack of a specific objective and a timetable for getting there. If the increasing intensity and pervasiveness of the culture of conservation in Ontario is deemed to be important to reaching the province's savings objective, and important enough to spend public money on, then the OPA should have a goal and a way of determining progress towards that goal.

It is not enough to point out, as the OPA did in the second paragraph of J4.3, that "the drivers of the culture of energy conservation metric are largely beyond the direct control of the OPA". CEEA accepts that the OPA, through its own efforts alone will not achieve the desired amounts of energy savings. The point is that the OPA's mandate is to lead in conservation matters (our emphasis) to ensure that the government's demand and savings targets are met. This applies in many areas of conservation activity. It follows that OPA executives should be held accountable for its efforts to achieve a culture of conservation; the meaning of "culture of conservation" must be clear, its indicia must be explained, and its importance, or lack thereof in meeting the government's targets must be explained. It cannot be just a convenient "buzz word" to quote in Annual Reports and executive speeches.

4. The Lack of a Plan to Meet the 2015 Targets

It is virtually certain that the OPA will not be able to meet the Minister's interim target by the end of 2015, for demand and energy savings; 4,550 MW and 13 TWh, respectively, in particular the 13 TWh interim goal for energy savings. CEEA notes that the OPA agrees with the CEEA and other intervenors, including GEC's witness, Chris Neme, that the interim energy savings goal for 2015 should be read to mean 13 TWh of savings in 2015, which consists of savings achieved by conservation activities in that year, together with savings persisting from conservation activities in prior years since 2005 (2005 is the base year).

The Table 2 from Mr. Neme's evidence, which is reproduced as Schedule D to the argument, contains a summary for energy savings from:

- OPA province-wide programs.
- Supplemental LDC Board approved programs (deemed to be 9% of the total savings expected from the total joint program savings).
- The Industrial Accelerator Program.
- Energy savings from demand response.
- Savings persisting from 2006-2010 OPA Programs.

The information was provided by the OPA in response to various interrogations. The annual savings in 2014 using the OPA's terminology in that table is 5.6 TWh.

The OPA agrees that the annual savings forecast for the year 2014 is not an unreasonable forecast. These savings are calculated in the manner described in the first paragraph above for all its conservation activities with the exception of contributions from improvements to the Ontario Building Code, improvements mandated by the Ontario and the federal governments for product energy efficiency standards, and savings from TOU rates.

The estimates of 2014 savings are the OPA's numbers, and they are not supported by any detailed initiative level information, save for the Industrial Accelerator Program.

That number is probably optimistic. Given the OPA's lateness in providing complete program documentation, and the effects on the schedule for Board approvals of the LDC programs, it is unlikely that many of the province-wide contracted programs will get underway until late in 2011, or early 2012, effectively making the joint program a three, rather than four, year initiative.

But even assuming the 2014 number of 5.6 TWh is achieved in 2014, it is highly improbable, to say the least, that the OPA can reach its 2015 target of 13 TWh, a target more than twice the 2014 number, regardless of the extent to which it accelerates its other conservation activities.

There is nothing in the three year (2011-2013) business plan that would produce these results.

The only major potential source of savings that is not included in Table 2, as noted above, is the savings generated by the improvements to the Ontario Building Code made in 2007, and the changes made to product standards since 2005 and the savings due to TOU rates. However, the OPA has offered no evidence as to what the actual savings (to date) and estimated savings for 2011, 2012, 2013, 2014, and 2015, are or will be, saying only that they are working on these projections, which they are producing from "models", and will include such estimates in the IPSP. What they appear to be proposing is that the savings achieved from building the new structures (to which the Code, as amended in 2007 by adding new energy efficiency revenue, applies) that comply with the new Code, dating from time those measures come into force. Some of the 2007 measures came into force in 2007, while others will come into effect next year. They use the same approach with new product standards, promulgated at either the federal or provincial level. However, we have no more detail on how that is being done or whether they have commissioned third parties to assist with this work.

Close attention must be paid to the integrity of these analyses, since the OPA has always maintained that "codes and standards" will be a significant part of total savings required to meet their conservation objectives.

But OPA has made very little information public on the methods it uses to calculate such savings or perhaps more important, the broader question of what its role has been in helping to create a more efficient Ontario Building Code or more progressive energy efficiency standards for energy consuming appliances and other products sold in Ontario. The OPA should be leading a co-ordinated effort in these areas, but it doesn't appear to be doing so.

The Board and stakeholders need more transparency in this area.

The OPA state (CEEA #16) that they are developing these savings numbers (for "codes and standards") from models which take into account several factors. They do not say whether they have these results in hand. Moreover, a plan demonstrating that the OPA now has a plan to meet the 2015 targets is required, and it would appear they do not have one. As Mr. Poch has pointed out in his cross-examination of Mr. Farmer, having a plan to achieve the 2015 demand and energy savings in late 2013, when the IPSP will likely be approved, is too late. There will simply not be enough time to implement that plan in the ensuing twenty four months, to meet the 2015 target.

The abridged high level summary of the Ontario Electricity Status and Outlook 2005-2030, a document which the OPA submitted to the Ministry of Energy in September 2010, and filed in this proceeding as Undertaking J2.1, does not provide any inkling of the plan required to meet the energy demand and savings targets for 2015. It hardly mentions conservation, other than to note that conservation has been factored into the long term load forecasts.

However, the OPA has had ample warning of the need to ramp up their efforts in CDM, beginning with the Minister's letter/directive of September 21st, 2008, which directed the OPA to investigate whether further conservation measures could be incorporated into the plan. Second, the passage of the Green Energy Act, which foreshadowed and, in part, prescribed a higher priority for conservation, in the government's energy policy and provided conservation related policy guidance to the OPA, the OEB, and the province's electricity distributors. Third and, most

recently, the government published a Long Term Energy Plan in November 2010, which restated the longer term conservation objective and provided new interim (2015) energy demand and savings targets, followed by the directive of the Minister to the OPA with respect to the second IPSP on February 17, 2011. The OPA could have prepared an interim plan to achieve the 2015 targets to file in this proceeding, by way of an amendment to its initial filing, containing assessments of additional resources (if any) that would be required to achieve these goals. It more or less ignored the September 28, 2008 letter, and revised the interim goals in the Long Term Plan, and simply continued to proceed with its preparation for the next IPSP. The OPA stated in its evidence that it had prepared a revised IPSP in response to the September 28 Directive and filed it with the OEB. The OEB, however, stated that it had never received an updated IPSP, and Mr. Farmer confirmed that in cross-examination. The OPA does not indicate whether it discussed this course of events with the government.

In this proceeding, the OPA has declined to provide any detail on how it has estimated the demand and energy savings that will "fill the gap" for 2015. It is saying, essentially, trust us; we have a plan. When pressed to elaborate, Ms. McNally stated there were four new initiatives that would be relevant (V2, p 203):

- A reorganization of the Conservation Division to make it more "customer-friendly".
- New emphasis on funding new energy savings technologies
- Roll-out of new LDC programs with performance incentives.
- Codes and Standards.

While each of these steps may be positive, except for the alleged LDC performance incentive, which has been demonstrated to be perverse (see Pollution Probe calculations), they most surely are not a plan to more than double the 2014 energy savings in 2015.

Moreover, as Mr. Neme notes, in his evidence, the OPA admitted that it has done nothing to date in response to directives in the November 10 Long Term Energy Plan to analyze the additional cost-effective CDM resources the OPA could feasibly acquire. Neither Mr. Farmer nor Ms. McNally were able to articulate a coherent course of action for determining these amounts. For example, one such approach would presumably entail a combination of new across the board potential studies, either on a sectoral or energy service basis or both, and careful updating of earlier studies (assuming that such earlier studies covered all relevant conservation sectors and activities), together with, for example, additional Ontario Building Code improvements for new buildings, conception of new programs, activities by the OPA alone or with others, an analysis of cost effectiveness of each of the measures using up to date and generally acceptable avoided costs numbers, and a judgment about the pace at which resultant programs could be implemented.

OPA has accepted the fact that conservation is its most cost effective option. This statement is hardly novel. In coming to this conclusion, it is only restating what has become common knowledge among energy policy analysts for many years, which is supported by many studies, notably recently by McKinsey & Co. (see above).

The problem is that the OPA has not acted on this conclusion. Its approach to conservation has been to treat it as an afterthought, with no coherent plan to plan to lead conservation activities in Ontario.

5. Integration of Conservation

CEEA is of the view that, without additional transparency in the OPA's operations, it is impossible for the OEB, the government, or any stakeholder to determine whether the OPA has incorporated the right amount of conservation in its load forecasts. Failure to do so would constitute fundamental failure to meet a large part of its mandate, specifically provide a robust conservation program and a cost effective IPSP (A.2.1, p6). That is why CEEA is interested in the degree to which the OPA is incorporating energy conservation into its load forecasts (Issue 1.1.d).

If the OPA does not integrate the appropriate amount of conservation into its load forecast scenarios, the result will likely be an excess of more expensive generation resources, and therefore higher bills to customers. It is generally recognized by energy policy experts that a great deal of energy conservation resource can be captured at lower cost than the least expensive generation options, resulting in lower bills for consumers. See, for example, McKinsey & Company, Energy Efficiency, A Compelling Global Resource 2010. For a more formal presentation of this proposition, see The Effects of Utility DSM Programs on Electricity Costs and Prices, Eric Hirst, Oak Ridge National Laboratory, ORNL/CON-340. This paper is generally recognized as the classic statement of the impact on CDM programs on energy bills. The OPA apparently agrees. See A-2-1, p6, Message from the Chief Executive Officer in the preamble to the 2011-13 Business Plan, "Conservation will always be our first priority, since it's our least cost resource and the most effective way consumers can manage their electricity bill".

At page 12 of its 2011-2013 Business Plan, OPA states that "significant efforts are being made to integrate conservation into planning Ontario's electrical system. These include developing longer term conservation potential assessments and forecasts and integrating them into planning". It does not say how such conservation potential assessments and forecasts were incorporated into planning, or specifically that they were incorporated into its load forecasts, or load forecast scenarios.

The OPA's prefiled evidence at B.1.1. p3 states "The Power System Planning Division will use the load forecast scenarios and conservation potential estimates to provide context for the development of the second IPSP as well as to support long-term conservation plans and enhance planning and implementation of conservation programs (our emphasis).

CEEA notes that nowhere in the immediately preceding paragraph does it say that conservation assessments and plans will be reflected in the load forecasts. Rather, it deals with load forecasts and conservation potential estimates as two different documents that the Power System Planning Division will use in three ways:

- to provide "context" for the development of the second IPSP.
- to support long term conservation plans.
- to enhance planning and implementation of conservation programs.

The previous quote, from the Annual Report that states that significant efforts were made (in 2010) to integrate conservation into planning Ontario's electrical system and, in integrating (conservation potential assessments, and forecasts) them into planning, suggests to CEEA that previous efforts to perform this integration were not yet complete.

This statement appears to conflict with the OPA's response to CEEA #2, which suggests no difference in the degree of integration will exist between the first and second IPSP (I. 7.2.1).

CEEA finds the prefiled evidence on conservation integration and Mr. Farmer's comments under cross-examination incomplete and unsatisfactory.

When asked to differentiate between a load forecast that integrates conservation from one that does not, the OPA highlighted the role of naturally occurring conservation (I.7.2.1) in both types of forecasts. (In fact, the OPA complicated the answer by saying that a forecast that did not integrate conservation "may" include naturally occurring conservation). However, when asked in cross-examination to define naturally occurring conservation, Mr. Farmer did not give a coherent explanation. He referred to it as "picking up the impact of pre-2005 conservation initiatives. Mr. Farmer gave no examples of what he meant TR.V.1. p74. A little further on, still on p74, he stated that "those were trends at play at the start of the conservation period, as laid out in the (2006) directive, and these are picked up as naturally occurring conservation". However, he mentioned no specific trends in the electricity sector from which estimates could be generated. The OPA should be crystal clear on what trends or developments pre-2005 it uses to justify its numbers for naturally occurring conservation. Furthermore, it needs to document the basis on which these trends are assumed to continue from 2005 to 2010, to produce savings it attributes to "naturally occurring conservation."

Mr. Farmer later stated that they do assess what savings will occur from building improvements, codes, product standards, and time-of-use rates. But neither he, nor anyone else, has produced any studies covering these topics (see below) (TR. V1, p81).

When asked about whether, and the extent to which the OPA plans to include cost-effective energy conservation into the load forecast, he constructed a straw man. He stated that they do not include all cost-effective conservation in the forecast because it can't all be procured, that he knows of no jurisdiction that did that and that "if we were to assume that it was all in, that would mean that we wouldn't be planning to supply some level of electricity" (V1, p85). That last statement is incomprehensible. Mr. Farmer must assume that there is enough cost-effective conservation to eliminate the need for additional generation in the future. That is not CEEA's view, nor the intent of our question. The question is how does the OPA decide how much cost-effective conservation is feasible in any given forecast year? He refused to answer the question and punted it to the IPSP.

The answer reveals that the OPA is dealing with the question implicit in the February 17th Minister's directive to the OPA.

"The plan shall seek to exceed and accelerate the achievement of these CDM targets (outlined in the previous paragraphs) if this can be done in a manner that is feasible and cost-effective" (our emphasis). The question implicit in that statement is how much cost-effective conservation is

available? Does the OPA know the answer to that question, and how recently has it made those calculations, using what numbers for its avoided costs? The Board has no information on that subject.

More important, Mr. Farmer said the OPA has not done any further conservation potential studies beyond those done for the 2006 IPSP, and said nothing further would be done until 2012 (V1, p113). This failure to redo the conservation potential analysis done for the first IPSP is surprising in light of the fact that on September 18, 2008, the Minister issued a directive to the OPA to revisit the IPSP with a view to establishing new targets in a number of areas including conservation. Mr. Farmer said the potentials were updated in some fashion but did not say how. It seems odd that the OPA has not revised its assessment of technical potential of conservation in various energy uses, and among various end users since 2005-06.

He made it clear that not all cost-effective demand and energy savings would be included in long term conservation plans and incorporated into load forecasts. Only that the portion of the cost-effective potential savings that was deemed feasible by the OPA would be included (our emphasis). He did not provide any coherent account of how the OPA decided how much cost-effective savings of a particular initiative was feasible in any given year of a load forecast, or how savings from proposed new programs, codes and standards, and rate impacts, eg. TOU pricing, should be handled.

Finally, OPA's prefiled evidence referred to a "planning report", which was prepared in 2010, and used in various ways, including advice to the Ministry to help with its preparation of the government's November 2010 Long Term Energy Plan. Mr. Farmer declined to table the plan. At the Board's direction, OPA did table a high level summary but it had virtually no conservation content.

Transparency in Planning

In the pre-filed evidence (B1, 1, p9-10), the OPA, in speaking of a planning outlook document it prepared in 2010, stated that "a planning outlook has been provided to stakeholders". Mr. Farmer admitted in cross-examination by Mr. DeRose, that in fact the document was not provided to stakeholders, but only to the government (TR. V1, p39, 18-22).

He noted that OPA's planning report did not benefit from any analysis of new conservation technologies, or products, that might have emerged since 2006 and increased the amount of cost-effective conservation available, and that its conservation potential estimates were based on detailed economic analysis.

The Board should require the OPA, in either a revised filing or its 2012 filing, to provide clarity on:

1. How it determines the feasibility of cost-effective savings for inclusion in load forecasts, if it does not accept all cost-effective savings over the planning period.

2. Publish the conservation potential studies done in 2006, as amended, if they are not already public with an itemized index so that third parties, including the Board, can understand how comprehensive the effort has been.
3. Provide complete numerical details on how the cost-effectiveness of potential programs is determined.
4. Provide a step by step analysis using current examples, demonstrating how conservation potential is assessed, how the cost-effective component of the potential is determined, how the amount of cost-effective conservation that is feasible to include in the given years' load factor is determined, and how those amounts, in the current context, relate to the government's 2015 targets, for annual energy and demand savings.
5. Show how future forecast savings from:
 - (i) codes
 - (ii) standards
 - (iii) OPA program – eg. industrial accelerator program
 - (iv) LDC programs

are developed and factored into load forecasts, by going through the step by step process outlined in the previous paragraph, and provide annual revisions to each calculation.

6. Flawed Execution

The OPA's execution of its province-wide contracted joint programs with the LDCs has not been implemented in a timely fashion, and this has led to serious delays in the launch of the four year program. The Master Agreement/Initiative Schedules documentation has overly lawyered, overly formalized, and overly complex documentation (some 1,200 pages in all). Apparently, the first draft of the Master Agreement was 400 pages long. At the LDCs' insistence, it was reduced to 90 pages.

The OPA did not have 4 of 6 of its Business Initiatives Schedules and any of its Industrial Initiative Schedules ready in time for the commencement of the hearing in the recent HONI/Brampton Hydro CDM application (EB-2010-0331 and EB-2010-0332), notwithstanding its contractual commitments to do so. For example, in the Master Agreement (ss. 3.2(a)(ii) and (iii)), the OPA had undertaken to complete the Initiative Schedules for the Industrial programs by February 28, 2011) (s. 3.2(a)(iii). They were not put on the website until about April 25th, some two months later).

The absence of these key documents caused confusion in the hearing around the issue of how the Board was to determine whether or not programs that HONI had proposed for Board approval in its submission, could even be the subject of an application. The Board's Conservation and Demand Management Code (2.3.1 and 2.3.2) requires that the LDCs (in this case, HONI) review the existing OPA-contracted province-wide CDM programs, to determine whether any of the initiatives HONI proposed in its submission were duplicative of the OPA programs, so HONI and the Board would be able to decide whether such programs were "duplicative" of the OPA initiatives. While HONI took the view that the OPA programs were "established" when the OPA Board approved them in June 2010, the Board did not agree (see below). The Board felt that, since the OPA's initiatives did not yet exist in a fully developed form, there was nothing to review. In its decision on March 7, 2011 (EB-2010-0331 and EB-2010-0332, p4), it stated that "the OPA programs must be established, defined, and taken up in such a way that the Board can make a confident determination that the Board approved CDM programs are not duplicative as per the Minister's directive and the Code".

Partly for this reason, the Board decided to suspend the hearing on March 7. Subsequently, on March 10, Hydro One informed the Board that it was withdrawing its Application, and would file a new application at a later date when the status of the OPA programs was clearer, and it had developed a complete evaluation plan for the proposed programs.

HONI had already stated at the preceding technical conference that its programs would not be available in the marketplace until the fourth quarter of 2011, thereby reducing a four year program to about a three year program. Much of the delay would be caused by having to prepare detailed evaluation plans and a detailed implementation plan(s) before launching the program for programs that were not yet available. With Hydro One having to file a new application, it is unlikely any program activity will be launched until sometime in the first half of 2012. This is a serious delay, given that HONI is the largest LDC in the province, and is a delay which is in considerable part caused by OPA's failure to produce its programs on time.

OPA Micromanagement of the LDC Initiative

The negotiation of the Joint Initiative between OPA and the LDCs was no doubt made more difficult and the implementation schedule compromised by the highly prescriptive nature of the Master Agreement and the Initiative Schedules. In CEEA's view, the Agreement was drafted in the style of a commercial agreement between two arms length private parties, rather than as a collaborative agreement between two public agencies, which have been directed to collaborate to achieve an important public policy goal. The Agreement does not fit the circumstances and has made the negotiation between HONI and the LDCs more difficult than it would otherwise have been. A few examples from this Agreement will support these points.

- The Agreements, including the Master Agreement ("MA"), the Initiative Schedules ("IS") and the Participant's Agreement (appendices to the Initiative Schedules) were all prepared by the OPA (Section 1.9). However, the LDCs were still required to waive the normal legal presumption in their favour in the event a court or arbitrator has to determine the meaning of an ambiguous clause(s).
- The OPA will establish a Marketing and Communications Plan and marketing materials for the Initiatives, in collaboration with the EDA Representatives but as determined by the OPA, and will provide the Plan to each LDC (2.3(a)(i) p6) (our emphasis).
- The OPA will develop Branding Standards and the Marketing Standards – the requirements, standards, and protocols applicable to the marketing of the CDM programs and initiatives across all marketing channels.
- The Agreement provides in subsection 2.2(b) that: "Each Party agrees that its relationship with the other Party is an independent business relationship and in no way does this Master Agreement contemplate or create a relationship of employer and employee, partners, joint venturers, fiduciaries, principal and agent or any other relationship between the Parties. Without limiting the generality of the foregoing, each Party acknowledges that it is not a service provider to the other and that, subject to the terms and conditions of this Agreement, it will at all times be entitled to discharge its duties hereunder in a manner it determines in its sole discretion to be necessary or desirable in order to implement and deliver the Registered Initiatives (the program)" (our emphasis). This characterization is both disingenuous and incorrect. Despite this Ms. McNally's frequent protestations that the OPA and the LDCs were "partners" (TR.V2, p.49, V3 pp301, 121, 123, 125, 135, V4 pp4, 55, 59, 77, 104), in fact the LDCs are very much in the nature of a service provider to the OPA (see above and below), and the parties should be described that way. Alternatively, the parties might be described as joint venturers with a fiduciary duty to one another to collaborate and take each other's interests into account, and work together to the overall success of the joint project. This clause attempts to say they are neither. It does not make sense.
- The OPA agrees to make only "commercially reasonable efforts" to achieve many critical tasks, including establishment of the Online Management Systems, and the provision of schedules and contracts on a timely basis. Commercially Reasonable Efforts is defined in the Agreement (Schedule A-1, p2) as:

"all efforts which may be required to enable a Person, directly or indirectly, to satisfy, consummate, complete or achieve a condition, transaction, activity, obligation or undertaking contemplated by this Master Agreement and which do not require such Person to expend any funds or assume liabilities other than expenditures and liabilities which are reasonable in nature and amount in the context of the purpose of, and the initiatives contemplated by, this Master Agreement" (not further defined by examples or a list, or in any other way) (our emphasis).

These clauses are normally found in commercial agreements between two arms length commercial parties. It is far from a firm obligation to get the job done in a timely way. One result can be seen in the lateness of many initiative schedules, discussed above. The clause is also, as noted by Mr. DeRose, due to its subjectivity and vagueness, an invitation to litigation (V3 p.124).

- The OPA can use a third service provider to perform any of its obligations under the MA. The LDC must deal with the OPA in the event of a dispute with the third party provider. It cannot deal directly with the third party provider.
- The Agreement contains extensive provisions that deal with intellectual property arising out of the venture, including all documentation, and other property associated with the program, whether it was developed by the OPA alone, by the OPA jointly with the LDCs (recall the ubiquitous working groups of OPA and LDC personnel that worked together to develop the programs), or developed exclusively by the LDCs but with funding from the OPA. The OPA provides the LDC a royalty free licence to use its property for program purposes until the end of 2014, which, barring a renewal of the program, then reverts to the OPA and can no longer be used by the LDC. These terms are inappropriate. Many of the programs will likely just be hitting their stride in 2014; if the OPA is to have any hope of meeting its 2015 targets anytime close to 2015, the joint programs will have to run for several years after 2014. The licence should be renewable by the LDCs. What if LDCs wish to build on the programs for other initiatives after 2014? (Section 5.1 MA). The OPA seems to view the LDCs as competitors, or potential competitors, that need to be controlled.
- As noted above, the OPA provides the Participation Agreements and each Initiative Schedule. LDCs cannot customize these Agreements unless permitted in the Initiative Schedules, and, in that event, must retain all OPA's mandatory provisions (subsections 2.8(a), (b), (c) and (d)).
- The OPA can do financial audits of LDC program books at any time on reasonable notice, or quality and assurance inspection, on five days' notice, or technical audits to determine LDC compliance with the Agreement (Sections 7.1 and 7.2).
- The OPA can insist on a joint conference to create a remediation plan, if, after eighteen months, on verified or non-verified information that LDCs' savings are materially less than the savings milestone for that date. However, the OPA does not have to sponsor, or fund, any remediation plan (OPA can walk away if it chooses) (7.3(a), (b), (c)). This

provision is anomalous, as the OPA is ultimately responsible for the success of the venture. Such disputes should be settled by arbitration with the Ontario Energy Board.

- All LDC board approved programs must use OPA's economic cost effectiveness test and OPA program evaluation protocols and guidelines.
- The existing change management process is awkward and unworkable. Section 4 of the Change Terms, in Appendix A-4 to the Master Agreement, provides that only the LDC representative can initiate a change from the LDC side. How can this work if LDC community is divided on a point? The change provision needs to be more flexible.

7. Performance Based Conservation

If the OPA is going to succeed in building initiatives that collectively will have a major impact on energy demand and energy savings consistently over an extended period of time, and if conservation is to maintain and increase its community and political acceptance as a resource that can be relied upon, and if the OPA wishes to carry out its responsibilities cost effectively, it is critical that it become knowledgeable about and embrace the ideas behind what experts call performance based conservation, as stated in the CEEA IR #16 (I, 7, 16, p1). Most of the OPA's current programs focus on providing incentives to replace less efficient equipment with more efficient equipment and use engineering estimates of the savings to calculate the program savings. Recent advances in conservation approaches suggest that performance based programs in which real data is used to both achieve and determine the savings is more effective (CEEA's emphasis).

In CEEA's view, the Toronto & Region Conservation Authority's ("TRCA") submission in EB-2010-0215 captured the essence of the idea of performance based conservation. The following points made by the TRCA were gleaned from the work it has done in energy efficiency in various types of buildings. The TRCA's advisor in the projects from which these principles were derived, was Mr. Ian Jarvis, and his consulting firm, Enerlife Consulting. Mr. Jarvis is a former President & CEO of Rose Technology, former partner of Engineering Interface Ltd., former chair of the Canadian Green Building Council, and widely recognized as a leading expert in energy conservation in Ontario, Canada, and internationally. The points were:

1. performance based conservation delivers far greater energy savings than previous approaches to energy (and water) conservation,
2. the larger part of the savings is found in low/no cost improvements,
3. successful and sustainable conservation has more to do with good management than with technology,
4. conservation programs have to support building managers with information, tools and resources so that they can recognize the unique set of conservation opportunities in their facilities,
5. benchmarking can identify buildings with high conservation potential, inform target setting and point to where savings are to be found in each building, and
6. monthly savings reporting flags variances in predicted savings, identifies measures which do not perform as intended, verifies savings which have been achieved and guides continuous improvement.

The question CEEA asked was "what changes has the OPA made in its programs to address the lessons learned and cited here?". In its answer, the OPA made a number of points, most of

which were not responsive to the question, some of which reveal a troubling attitude. For example, the answer began this way:

"The OPA-Contracted Province-Wide Programs for 2011-2014 were designed in collaboration with LDCs and with input from a public stakeholder session in April 2010 on the draft program design which was attended by more than 200 organizations".

One is tempted to ask, "And?".

A close reading of the principles provided by the TRCA and Mr. Jarvis reveals several points relevant to this proceeding, including:

- For real persistence in savings to be achieved, these savings must be measured regularly, relative to a baseline.
- Getting the best savings performance from a building takes many years to achieve. It is a long term process.
- Benchmarking is a critical tool as like buildings, eg. hospitals, schools, commercial office buildings of comparable size can be assessed relative to one another. Managers and employees can be motivated this way.
- Low cost, no cost improvements and better energy management personnel in the facilities are cost effective measures – often require less funding than equipment replacement or whole building retrofits.
- New technology per sé, especially without good management, is not the most effective way to proceed.

In its submission in EB-2008-0346, Demand Side-Management ("DSM") Guidelines for Natural Gas Utilities, TRCA explained its performance based approach in this way:

"Actual energy (natural gas and electricity) savings

We have found through over 4 years of engaging public and private sectors in taking conservation action and monitoring actual consumption that:

- the savings that are being achieved are not as deep as could be achieved. A careful process of identifying actual operational and equipment inefficiencies in a building, taking corrective action and monitoring the resulting consumption through utility bills, is the path to deep energy savings.
- the cost of correcting operational and equipment inefficiencies is much less than the more typical installation of newer technology.
- without ongoing attention to monitoring consumption, savings can evaporate from one year to the next, including when the action taken was replacement of equipment, the

typical solution incorporated by industry. This has everything to do with poor operational practices.

Industry/Market

There is a market for conservation activities because the utility company's DSM programs have raised awareness over the years and the incentives have been an important message in this engagement. Almost all of the market providing conservation is focused on capital projects and equipment replacement with little consideration of follow up operational efficiency and verification of the equipment. How well or poorly the changes have actually reduced consumption is rarely understood. Any incentives need to be strongly biased to the end result, actual reductions rather than initial calculated savings.

The activities in which TRCA has been involved have necessitated closing the loop to measure actual results. This has uncovered the primary importance of best available operational practices and processes rather than just best available technologies and we believe this is the answer to deeper and sustainable reductions. But in order for the market to adopt this approach, it must be educated and instructed on how, through the DSM programs from the utility companies (natural gas and electric). When these incentives are aligned with CDM incentives from LDCs, building owners and managers will be better served with deeper, integrated processes which will encourage greater uptake, even with existing budgets.

This approach brings the additional benefit of the development of an internal process of ongoing improvement within an organization as monthly and yearly consumption is monitored and attention to performance grows. This supports a multi-year DSM program that can ultimately be withdrawn from the market as the culture of continuous improvement, backed by real performance results, gains traction."

In addition, in CEEA's view for conservation as a resource, to gain and retain credibility with energy policymakers, it should be measured wherever possible. The so-called "engineering approach" where particular measures are deemed to create specific amounts of savings is a second best approach. It may be justifiable for very small product additions but not for retrofits of any significance.

There now exist and have existed for many years, extensive guidelines for measuring energy savings, both for entire buildings and for equipment, computed by ASHRAE and many other bodies. Many energy engineers are familiar with these guidelines and methods. They have been widely used in Ontario by energy service companies, such as Ameresco, Johnson Controls, Honeywell, Siemens, and MCW, for at least twenty five years, with clients like school boards, hospitals, universities, community colleges, commercial buildings, and some industrial concerns.

CEEA notes, with approval, that the OPA's industrial accelerator program ("IA") does require regular measurement of savings achieved, and payments under the contract are contingent on such savings, and are generally paid on a MWh basis. However, section 2.6(g) of the Program Rules for the IA restricts the incentive by the following provision:

"The Project incentive can contribute no more than 70% of the total Eligible Costs (as defined in the Rules) of the project or Portfolio (of several projects) as such Eligible Costs are determined in accordance with Section 2.5". Eligible costs are mainly equipment costs.

This provision was doubtless premised on the idea that the costs would be mainly equipment (capital costs) plus perhaps 10% preliminary and detailed engineering studies. However, in the performance based conservation approach described above, the principal costs might well be, in addition to staff costs, ongoing data collection, collection and analytical software, energy manager costs, and metering equipment and, perhaps, telecommunication costs. These costs would be small, relative to the equipment retrofit costs contemplated in section 2.6(g), yet the savings generated could easily be substantial, at least as large as those in a project where the emphasis is on equipment retrofit. It would be wise to remove the limitation in section 2.6(g). It does not make sense for the projects designed according to the principles for performance based conservation set out above.

Facility energy managers should be motivated to achieve the highest possible persistent savings at the lowest overall costs.

8. Transparency

The OPA insists that transparency in its dealing with partners, stakeholders, and the public, is a key part of its mission. In CEEA's view, the OPA needs to vastly improve the degree of transparency with which it operates.

Style of Operation

The OPA's basic style of operation seems to be secretive, modeled on that of a privately owned, for profit, commercial corporation, in a very competitive industry.

There are many examples, both large and small, of this style. The CEEA members and advisors have, on occasion, been unable to obtain something as simple as a list of telephone numbers of OPA employees. Most important, evaluation of OPA programs for 2006, 2007, 2008, and 2009, were only put on the OPA website once it became apparent that intervenors in this proceeding were interested in having them. OPA's natural tendency is to conceal, rather than reveal.

A still more telling example is the OPA's refusal to disclose in this proceeding analyses that it says it has done for the IPSP that determines the amount of demand and energy savings that it believes can be achieved through new construction which meets energy efficiency related improvements to the Ontario Building Code in 2007 (and other such improvements that were enacted in 2006-07 but are due to come into force in 2012) and savings from tighter energy consumption standards that have come into force since 2005 for several products, including several household appliances. These alleged savings are fundamental to the OPA's ability to meet its 2015 demand and energy savings targets, yet it refuses to provide them now. Why? There is no legal or practical requirement that the material which will find its way into an IPSP cannot be distributed beforehand. This would help, not hinder, the planning process.

A further example of the tendency to conceal is the stringent confidentiality provisions contained in the OPA's Master Agreement with the Ontario LDCs, enforceable by injunction, and breach of which by an LDC can lead to termination of the Agreement. These provisions appear to have been lifted word for word from agreements between arms length commercial parties engaging in a transaction. They do not belong in agreements between two public agencies collaborating to conduct activities in the public interest. Who are the arrangements being kept confidential from?

Another example is the fact that in its evidence, in connection with its achieving a 2010 milestone, the OPA stated that A Planning Outlook has been provided (in 2010) to stakeholders. Under cross-examination, it confirmed that the document had been disclosed only to the government (Tr V.3. pp 39-40). When asked to produce the report in this proceeding, the OPA refused to do so, claiming confidentiality. The Board directed it to provide a summary of the report, which it did. However, the summary was a very high level document that contained virtually no information on conservation. The OPA is not part of the Ministry of Energy. It did not need to claim confidentiality from a document solely because such document was an input, one of many presumably, to the government's Long Term Energy Plan. It chose to do so, a reflection of its culture of secrecy.

Finally, the OPA states in its reply to CEEA IR #8 (I, 2, 8, p1) that "Summary reports of portfolio results are made publicly available". Bearing in mind that in "OPA-speak", a portfolio means the aggregate of all its conservation programs (and possibly related activities such as its role in improving the energy provisions of the Ontario Building Code), such a number is almost meaningless (our emphasis).

True transparency would mean the OPA would report quarterly on demand and energy savings from each of its initiatives, and each related activity.

Frequent public reporting is the best way to involve members of the business and academic communities, and the informed public in its CDM efforts, and can only assist the organization to achieve its objectives. There appears to be no downside to this approach; certainly the OPA has not articulated one.

The OPA's mandate with respect to CDM is very broad, and the Minister's directives to it have made it clear that the OPA is the lead agency within the Ontario government and the province at large to achieve the government's CDM goals. Part of achieving this goal is to involve the stakeholders and the public as much as possible.

In the same IR response (CEEA #8), the OPA states that "Program specific budgets and targets and procurement process outcomes (generation) are brought forward to the OPA Board for approval", and, in the next paragraph, "The OPA manages, tracks, and reports on the effectiveness and impacts of its conservation programs based on the program-specific OPA-Board approved budgets and targets" (Recall "programs" mean conservation and generation). The OPA should report quarterly, on an initiative basis, its demand and savings results. The OPA's Board is apparently not regularly made aware of initiative level information. These program level aggregations are much too broad, and not of great use to a director, senior government official, OEB Board member, or stakeholder.

The OPA apparently tracks internally its progress in meeting CDM directives, which it produced in part in this proceeding at I. 7.9, p2 (see above comments on compliance with directives). It should make their figures available quarterly to the public, and, as noted above, the Board should receive quarterly compliance reports, on a directive by directive basis. The Board licenses the OPA, and under the terms of that license, has the right to require the OPA to submit any information it requires to carry out its regulatory duties. The OPA has used similar provisions in HONI's licence and the Electricity Act to demand information from it (our emphasis).

Returning to I. 7.8.1, the OPA states that "it is currently working with the Ministry of Energy to define a process for reporting on the 2011-14 CDM Programs funded through the OPA". The Board should direct the OPA to make quarterly initiative level reports available to it, the stakeholders, and the public. As noted above, the Board licenses the OPA and has the right to request and obtain such information.

The OPA states in the communication portion of its Evidence that it wishes to be a "trusted advisor" to the public and stakeholders on energy matters in Ontario. Operating in a more transparent matter would be a first step towards that goal.

9. Co-ordinating Electricity and Gas in CDM

The Government has made clear in directives to both the OPA and the Ontario Energy Board that the OPA should pursue joint projects with other entities including natural gas utilities. Yet the OPA filed no evidence on its intentions to co-design and/or jointly implement combined gas and electric energy savings for the joint customers of gas and electric utilities. Such joint programs should result in O&M cost savings for both the OPA and the gas utilities and, more important, result in programs that provide their joint customers with a more comprehensive, deeper savings offering, at lower cost in time and money to them.

The Minister's CDM Directive to the OPA, on March 10, 2010, stated: "It is expected, that where appropriate, and having regard to its overall mandate, and that of electricity distributors, the OPA will seek opportunities to co-ordinate OPA-contracted Province-Wide CDM Programs between the electricity distributors and other entities, such as natural gas utilities".

In its directive to the Ontario Energy Board dated March 31st in 6(b), the Minister stated: "The Board shall encourage opportunities for co-ordinating CDM Programs between the distributor and other relevant entities, such as the electricity distributors, natural gas distributors, and the OPA".

Section 8.1 entitled CDM Program Co-ordination in Appendix B to the Board's CDM Code – CDM Strategy Template requires the electricity distributors to "Describe, where applicable, how the distributor will pursue administrative efficiencies and co-ordinate its CDM activities with other distributors, natural gas distributors, social service agencies, any level of government, government agencies, the OPA, and any other organizations".

Most customers, when they consider energy conservation, think about their energy bills, not their gas bills and their electricity bills.

Approaching the customer once, rather than twice, or three times, with a program that addresses the customer's need to conserve energy, both gas and electricity (and bearing in mind that on a btu basis, more gas than electricity is used in Ontario) makes more sense than individual meetings between the customer and the OPA, the customer and Union Gas (or Enbridge) and the customer and Hydro One. It should be more cost effective for both the customers and the OPA. For example, each of Union Gas, Enbridge, the OPA, Hydro One, and other larger LDCs, have customer account managers calling on industrial and larger commercial customers. Most of the target group for the OPA's industrial accelerator program, the forty five large industrials connected directly to HONI's transmission systems, also use natural gas, and most of them are in the Union Gas franchise area of southwestern and northern Ontario. They are also directly connected to Hydro One and meet regularly with its account managers.

The gas utilities, in particular Union Gas, providing attribution issues can be fairly resolved are interested in collaboration. In Union Gas' EB-2010-0055 application to the OEB for its 2011 DSM program, it discussed the desirability of gas-electric DSM/CDM collaboration, as follows:

"When appropriate, Union Gas will work with other LDCs (both gas and electricity) for the delivery of DSM and CDM initiatives. When that co-operation requires partnerships or the sharing of costs and/or benefits, Union Gas will enter into upfront agreements as to the distribution of attributes of those activities."

"In order to facilitate further integration between DSM and CDM to leverage the established delivery channels and relationships Union Gas has built in the marketplace, the Board should ensure utilities are rewarded for the value they bring to a program. Attribution is most appropriately determined by the parties to the agreement, recognizing that the total value of resource savings claimed by all parties should not exceed the benefits generated by the program" (p 29).

Union also noted in its Key Elements of Plan for Contract Market (larger industrial, commercial, and institutional customers) that:

"Assisting customers with identifying and prioritizing energy efficiency opportunities, provide added value to our customers, and often give them the opportunity to take advantage of growth opportunities when they arise"; and it wants to,

"Position Union Gas as an energy expert for all energy management related issues".

The gas utilities, the OPA, and the electric LDCs have parallel mandates, and rather than each of them fighting over who will be the lead contact for which company, it makes sense to collaborate, leverage off each other's efforts, and ensure that credit is appropriately allocated to both utilities and the OPA. The OPA should be interested in such collaboration, because as the agency with the overarching mandate and accountability for electricity conservation, it will get to count the electricity conservation produced by the gas utility, and it ought to see reduced O&M costs and more effective and timely implementation of programs such as the industrial accelerator program.

In the non-utility private sector, the energy service companies have always done comprehensive audits, engineering, and building retrofits which produce gas, electricity, and (sometimes) water savings. The economics of scope are likely substantial. As an example, consider the case for heat pumps, an initiative that can substantially reduce the heating and cooling costs for a building, and which the Minister has noted several times recently, including in his February 17th IPSP-2 directive to the OPA, should be considered an electricity conservation strategy.

The OEB should direct the OPA to take the initiative to start the collaboration in both program implementation and program design. The Board is well aware that the CDM funds available to the OPA and the electric LDCs are orders of magnitude larger than those the Board has permitted the gas LDCs. Thus, the OPA should do the bulk of the organizational work in preparing the ground for joint programming and implementation.

10. Evaluation of and Audit of Savings

For many years now, the major natural gas utilities in Ontario, Union and Enbridge, have had audit programs for their program evaluations. The audit committee, that includes stakeholder representatives, have the following duties:

- They produce a plan for the evaluation of CDM programs.
- They decide on the consultants to be hired to manage the evaluation.
- They review the evaluation prior to its being made final.
- The committee work is funded by the utility as part of its CDM budget, and recovered in rates.

Both the stakeholders and the utilities regard the audit committee's work as useful. The gas utilities have had DSM programs since the Board's initial CDM decision (EBO-369) in 1995. The committees were established by the Board as part of that decision and have been in existence since that time.

When asked by GEC (I, 3.7(e)) why it did not have an annual savings auditing process akin to those used by the gas utilities, the OPA's reply was:

"No, the annual audits that support Natural Gas Demand Side Management activities are not a characteristic of the EM&V process that supports electricity Conservation and Demand Management activities. This is because EM&V for electricity CDM activities is performed by independent third-party contracted evaluation managers selected by a competitive Request for Proposal process. EM&V conclusions are inherently independent."

That answer is disingenuous, to say the least. The OPA has testified that it has audited all its programs (initiatives) according to the Evaluation Protocols that it has produced, that it chooses the evaluators that it decides on the scope of work, that it reviews the draft evaluations before they are finalized and published, and it maintains that it sees no need for an audit committee for its evaluation work.

This issue is important, in that it goes to the credibility of the reported savings, and to whether the OPA is fulfilling its CDM mandate.

CEEA agrees with Mr. Neme's comment (p 9 of his evidence):

"While it (contracting with outside evaluators) is certainly better than doing all EM&V work internally, hiring external evaluation firms does not guarantee independence. OPA decides what evaluation activities to undertake. It decides what the scope of work will be. It decides which independent contractors to hire. It presumably reviews and provides comments on draft work products that are never made public. In other words, OPA can have great influence over estimates of the savings it is producing."

Mr. Neme provides reports of decisions by various US energy regulators to support his point, three of which are of particular interest to this discussion, as Attachments to his evidence.

The first is a decision of the Connecticut Department of Public Utility Control (the "Department"), that state's utility regulator, of January 6, 2011, reviewing a recent decision of the Connecticut Energy Efficiency Fund for Conservation and Load Management. This fund is administered by the Connecticut Energy Efficiency Board, a joint utility-stakeholder board, which, inter alia, hires the evaluation contractor(s) through its Evaluation Committee. Connecticut electric utilities have been offering CDM programs for more than twenty years.

The Department decided in its review of the Board's Evaluation Committee that the consultant(s) which they chose had to be independent from the utility and totally responsible for all aspects of the evaluation process and that once the evaluation had begun, the relationship between the Energy Efficiency Board and the evaluation contractor should be treated in a similar manner to a contested (adversarial) proceeding and, in particular, The utilities and the Energy Efficiency Board will no longer be permitted to comment on internal draft evaluation reports. The Evaluation Group (the committee and its evaluator) shall, when ready, publish a draft report, accept written comments in a public forum and then publish the final report. On the other hand, in Ontario, evaluators are given a format in which to conduct the evaluation, and the conclusions are discussed with OPA Evaluation Division personnel before they are published.

Second, in Illinois, the statute provides that the program evaluator reports to the Public Utilities Commission (OEB). When a major utility nonetheless requested the Commission's permission to manage an RFP process to hire the evaluator, the Commission refused.

Finally, in Massachusetts, a decision of the Massachusetts Department of Public Utilities in late 2009 approving a statewide Electric Energy Efficiency Plan for 2010-12 for all state electric utilities upheld the decision of the Energy Efficiency Advisory Council ("EEAC") on the principles to be followed in CDM evaluations in Massachusetts (set out at pp 275-291 of the EEAC's decision), that:

- The public utilities and the EEAC consultants shall jointly prepare a statewide research management plan to carry out the evaluation.
- The EEAC will have the unilateral right to replace jointly chosen program evaluators or evaluation managers if they do not perform effectively with pre-established objective standards [not unlike, in its effect, the Ontario gas audit structures].

The OPA has tried to justify its exemption from normal practice in Ontario, by pointing to its public ownership, and unique nature. Whether an entity is publicly owned or investor owned surely has nothing to do with how to best ensure that savings verification and evaluations of its work are truly independent of the organization that is charged with producing those savings. On that basis, almost all the LDCs would be exempt also, a result that CEEA is sure the Board would not support.

Second, there is nothing unique about the OPA in any sense that bears upon how its claimed savings should be verified and the quality of its programs evaluated. It is a service provider,

producing both CDM and generation. Finally, the gas utility evaluation committees are a proven success, and a ready model.

The OEB should direct the OPA to develop and propose a verification and evaluation audit committee similar to that used by Enbridge and Union Gas.

11. Resources Requested

Issue #2.4 states "Is the budget for Strategic Objective #2 appropriately allocated among the initiatives being pursued?" CEEA cannot make a meaningful submission on that question as it stands because the OPA chose not to submit its O&M budget and FTE requirements on an initiative basis. It claimed that, because it assigned employees to various interdepartmental project groups from time to time and it operated in a "matrix" manner, it could not comply with Board's suggestion. It apparently does not require employees to keep time sheets, nor does it track in any other way the amount of time various employees spend on different initiatives. This method of operating, and not recording time spent, is somewhat unusual. Most professional organizations, be they engineering firms, accounting firms, management consulting firms, investment banks, or law firms, have quantitative data, even if only approximate, on what projects their employees spend their time on, and the projects and initiatives on which they were principally engaged over the course of a year. It is part of the raw material they use to decide compensation and promotions, and to ensure accountability for results.

The Board stated in its Issues Decision on January 10th (attached to Procedural Order #2), when it decided to place the Issue 2.4 on the Issues List that:

"The Board appreciates the OPA's argument that because the OPA's administrative activities are driven by government directives and policies, its priorities and activities can change significantly and suddenly. These circumstances require the OPA to maintain a certain amount of flexibility. However, the Board is of the view that the allocation of the OPA's budget among its objectives and initiatives is germane to this proceeding and that this issue should remain on the issues list. The Board is of the view that an organization with the OPA's sophistication and responsibilities should be able to provide information as to how its budget is allocated among initiatives, for the purpose of assessing whether the proposed fees are reasonable and appropriate."

The OPA agreed that it did not submit its budget and FTE request on an initiative basis, notwithstanding the fact that Issue 2.4 required it to do so.

Instead, it broke down its O&M and FTE request by program only, eg. conservation and generation, the method it has always used.

Despite the Board's suggestion in its decision on the Issues List Decision (Procedural Order #2), the OPA did not see fit to amend its application to breakdown its FTE and dollar (either internal O&M or payments to third parties) requirements by initiative. When asked to provide initiative linked information (V1, p 101), Mr. Gabriele punted the question to the CDM panel, of which he was also a member, although he did admit in response to a later question (V1, p 149) that some of the resources were anchored to one initiative or another, as opposed to be part of constantly shifting matrices.

While the OPA did agree to file, at CEEA's request, FTEs and internal O&M dollar expenditures on the basis of the divisional units in the revised organizational chart (Undertaking J1.3), they declined to include, as requested, payments to third parties. Moreover, they qualified the

information provided as follows: "The OPA does not consider the categorization in Table 1 to be illustrative of the costs of internal resources for its strategic initiatives". CEEA had intended to follow up on this question in its cross-examination of the CDM panel on Friday, May 13th, but the time allotted for cross-examination did not permit us to do that. In any event, given the lack of senior management on either of the two major panels in the proceeding, it is unlikely that the answers would have been forthcoming.

Finally, Mr. Farmer professed that he did not recall the number of FTE in the organizational unit he headed a few years earlier and remarked that in the Power System Planning Branch, all O&M budgets were held by the Vice-President. CEEA took that to mean that division directors, of which there are five in the Power System Planning, including Mr. Farmer, were not privy to the O&M budgets of the groups they managed; a structure, one might add, not conducive to managerial accountability for resources.

It seems clear that OPA witnesses were instructed not to talk about resources on an initiative basis.

The only place in the prefiled evidence where incremental dollar resources for 2011 are detailed more or less on an initiative basis is in Table 1, entitled Spending Change – Year-Over-Year 2011 vs. 2010 (D2.1. on p 3 of 13). The square coloured boxes over the columns 6 through 15, except for column 10, "office space and amortization" which denotes a reduction in 2011 relative to 2010, because of a revised average (lengthened) amortization period for leasehold improvements and other assets. The other 10 boxes, starting with TTT/GEA Funds, represent increases in O&M spending in the 2011 budget relative to the 2010 budget. A brief explanation of each request is found on page 3 of the same Schedule (our emphasis).

These explanations are not complete, in that, they do not indicate FTEs or partial FTEs, and do not distinguish between internal salaries and payments to third parties, including consulting/legal fees.

The new resources requested, as displayed at D2.1, p3, Table 1, are significant – something over \$4 million. They have been "offset" by several items, that do not, however, represent real reductions in other portions of the O&M budget. The "reductions" include:

- A "reduction" of the communication budget of \$3.416 million from the 2010 communication budget. However, the actual communications to spend in 2010 was only \$2.661 million, almost \$3 million below budget. The real reduction from 2010 was only \$500,000. The OPA did not explain why the 2010 communication budget was 125% higher than the actual expenditure.
- The lengthening of the asset amortization schedule, described above.
- A removal of the contingency of \$800,000 from the 2011 budget, without any convincing explanation of why a contingency was no longer required.
- "Capitalization" of the O&M funds for the Conservation Fund from the fees budget to charges, which are not regulated by the OEB). The amounts of cash payable in 2011 to

Conservation Fund grant recipients for awards made in years 2008 and 2009 will remain in the 2011 and 2010 grants portion of O&M budget, but all new grants in 2011 and beyond will be funded through charges. It is not clear what the 2011 grants budget would otherwise have been.

- Additional application fees revenue of \$1.6 million relative to 2010, earned by the OPA through the FIT program will be used to reduce the 2011 revenue requirement by \$1.6 million.
- Finally, in 2011, the OPA plan to use \$600,000 in interest on deposits of FIT applicant's registration fees in 2011, which reduces the revenue requirement by that amount.

The OPA stated in evidence that the budget is down \$1.0 million from the 2010 level (D, 2.1.2).

This characterization is misleading. The budgeted O&M spending in 2011 is actually well above 2010 actual spending, but given the adjustments noted above, relating to the lapsed funds in the 2010 communication budget, the removal of the contingency fund, and the "capitalization" of 2010 and 2011 Conservation Fund payments, higher fees, and the use of interest on bank deposits for operations the OPA claims a reduction. All of these adjustments, in total, provide an offsetting reduction to the revenue requirement of at least \$6 million.

In fact, Operating and Administrative Expenses - increased by \$2.2 million, total compensation benefits budget has increased by \$1,836 or almost 6% above the 2010 budget (D,2,1, p7, Table 2), and Administration and back office support staff costs have increased by approximately 20% (2,183 ÷ 10,725) (D,2,1, p7, Table 2). The only reason the 2011 O&M budget is approximately \$1.0 million lower than the 2010 budget is the removal of the contingency and the transfer of Conservation Fund grants from fees to charges. The main reason budgeted professional consulting fees have declined is that the lapsed funds of \$3 million in the 2010 communications consulting budget account were included in the 2010 budget. As an aside, if that means that the OPA will communicate with the outside world less than it has in the past, that is reason for concern (see below).

Budgeted legal fees, while slightly somewhat below 2010 actuals, \$4,460,000 vs. \$5,660,000 million are still very high. The OPA did not provide a coherent answer to questions about why they continue to pay very large legal fees to two or three of Toronto's largest law firms whose hourly rates are very high, when much of the work required, is reasonably routine commercial contract work, which could be done at much lower cost by additional in-house legal staff. OPA did not provide evidence on the size of its in-house legal staff or budget in its evidence, but CEEA believes it to be only three or four lawyers, including Mr. Lyle, who, as a senior vice-president, carries many other responsibilities.

While CEEA, as stated above, cannot address Issue 2.4 properly, given the lack of information, it can offer some recommendations on the resource issues:

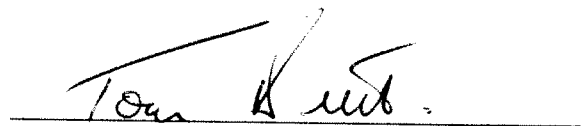
1. OPA should prepare O&M budgets and revenue requirements in a straightforward and user-friendly manner, and should not mask resources increases by reduction in other types of resources, or changes to capitalization policies. In the world of publicly traded

investor owned companies, such cosmetic arrangements are referred to as "shaping", or "smoothing" earnings. It is better not to mix, in the same table, changes of revenues, changes in expenditures, lapsed funds, changes in capitalization or amortization practices, removal of contingencies, use of interest on bank deposits to temporarily increase revenues, and so on. The OPA seemed to be focused on showing a reduction in the revenue requirement, rather than displaying clearly to the Board and the stakeholders what resources, in which places, they need to fulfill their mandate.

2. OPA should seriously examine the case for hiring more lawyers in-house, given its soaring outside legal costs.
3. OPA insists on having its own account executives for larger customers, when both gas companies and Hydro One, and many large distributors already had such personnel. This potential overlap should be reviewed.
4. OPA needs to hire more analysts to assess the customer bill impacts of its planning, and its programs. Reducing customer bills is a fundamental objective of OPA conservation programs. Mr. Farmer admitted to Mr. DeRose that it did not have the people qualified to do that work. They need them.
5. More generally, it appears to CEEA that the OPA has a shortage of experienced professionals in the CDM division. As an example, only one of the four panelists on the CDM panels had previous energy conservation experience prior to joining the OPA. Contrary to some comments in the proceeding (DeRose, McNally V.3.p124) that energy conservation is new, it is not. The Power Corporation Act was amended to allow Ontario Hydro to do energy conservation in 1974, and it, and its successor companies have been active in the field since that time. There has been an active, growing multi-billion dollar conservation industry in Canada and internationally since at least 1980, more likely 1975. There are many highly qualified people that could have been hired. It seems that OPA's approach to hiring ___ CDM is idiosyncratic.

The OPA should report to the Board in its next submission on the steps it will take to increase the expertise and experience in its CDM division.

This argument is respectfully submitted today, May 27th, to the Ontario Energy Board on behalf of Canadian Energy Efficiency Alliance, by its counsel, Tom Brett.



Tom Brett.

Schedule 1

ALLIANCE INTERROGATORY 9

QUESTION

Issue #2

Strategic Objective #2

9. Given that any Ministerial directives that were provided in advance of the Green Energy and Green Economy Act, were enabling objectives, i.e., that they enabled the Ontario Power Authority to recover the charges associated with such initiatives, please provide the OPA results with respect to achieving the MW of conservation, etc, identified in the directives to from the date of the directive to the end of 2010. Where such MW results were less than directed, please provide a variance explanation for the shortfall. Where such MWs were greater than directed please provide a variance explanation of over achievement.

RESPONSE

Contrary to the premise of the question, the Ministerial directives on conservation (with the exception of the directives issued with respect to the IPSP) that were issued prior to the Green Energy and Green Economy Act, 2009 did not set conservation targets. Rather these directives authorized the OPA to recover charges for amounts paid to procure conservation resources up to a certain limit. This was usually expressed as up to a certain number of MWs but in the case of the July 13, 2006 LDC CDM Directive the limit was set as no more than \$400 million in funding over three years. As MW targets were not directed, there is no variance from targets to explain.

Directives 1, 2, 3, 5 and 6 are not time-bound. The table below reflects progress to date in procuring conservation resources under these directives.

The directives are not mutually exclusive. For example, a CDM program that promotes lighting retrofits in low income households in Toronto could contribute to directives 2, 3 and 4 below. In order to avoid any possible double counting, the OPA has mapped each CDM initiative to a single directive. In doing so, initiatives which could be allocated to multiple directives were mapped to the time-bound directives first.

MW-Related Directives:

All MW savings are net 2010 demand savings at the generator level (i.e. including avoided distribution system and transmission system losses).

1

	Directive	Directive Date	MW Procured*
✓ 1	DSM/DR across Ontario	June 15 2005 Feb 9 2006	459**
✓ 2	Residential low income/social housing DSM	October 6 2005	3
3	Appliance/Lighting	October 20 2005	25
✓ 4	Toronto	February 10 2006	215
✓ 5	Electrically heated/ other residential DSM	March 10 2006	87
✓ 6	Commercial/MUSH DSM	March 10 2006	29
7	LDC CDM funding	July 13 2006	265

2006 program activities were counted under each of the procurement Directives in rows (1) through (6). Following receipt of the LDC CDM funding Directive, much of this program activity began to be counted under that Directive. Due to the more comprehensive nature of the LDC CDM funding Directive, MW procured under each of the Directives in rows (1) through (6) should not be interpreted as exhaustive.

The directives are not mutually exclusive. For example, a CDM program that promotes lighting retrofits in low income households in Toronto could contribute to Directives 2, 3 and 4 above. In order to avoid any possible double counting, the OPA has mapped each CDM initiative to a single directive. In this doing so, initiatives which could be allocated to multiple directives were mapped to the time-bound directives first. As such, it is important to recognize that while the table above shows, for example, only 29 MW procured under the Commercial/MUSH Directive, this does not mean that only 29 MW of savings have been achieved in the Commercial/MUSH sector. CDM programs targeting this sector that have been delivered by LDCs over the past 3 years, including the Electricity Retrofit Incentive Program and the Power Savings Blitz, have been attributed to the LDC CDM funding directive. With the issuance of the LDC CDM funding Directive, savings for programs that were funded through the LDCs were counted towards this Directive. This had the effect of lowering the savings that otherwise would have been attributable to the other directives.

*Based on: final results from OPA funded CDM programs implemented in 2006-2009 and an outlook for 2010 programs that the OPA developed in July 2010

**Demand Response results are based on contracted MW capacity as of the end of 2010

Schedule 2

Minister of Energy

Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel: (416) 327-6178
Fax: (416) 327-6674

Ministre de l'Énergie

Édifice Hearst, 4^e étage
900, rue Bay
Toronto ON M7A 2E1
Tél: (416) 327-6178
Téléc: (416) 327-6674



February 10, 2006

Schedule 2.

Toronto 1.

Jan Carr
Chief Executive Officer
Ontario Power Authority
Suite 1600
120 Adelaide Street West
Toronto, Ontario
M5H 1T1

Dear Dr. Carr:

Re: Toronto Reliability Supply and Conservation Initiative

I write in connection with my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority (the "OPA") under section 25.32 of the *Electricity Act, 1998* (the "Act").

On January 20, 2004, the former Minister of Energy, the Honourable Dwight Duncan, announced that the Ministry of Energy would be instituting a procurement process to secure approximately 2,500 MW of electricity capacity from Clean Energy Sources, Demand Management and Demand Response. On June 25, 2004, the Ministry of Energy released the 2,500 MW Request for Proposals document. The Request for Proposals document specifically referenced two priority zones in the province which were identified by the Independent Electricity Market Operator (now the Independent Electricity System Operator (the "IESO")) as having critical local and regional supply, reliability and voltage support needs. One of these identified priority zones was downtown Toronto. - Leaside Sector. The results of the Request for Proposals process did not, however, meet the need for new supply or demand response and conservation in this sector.

New Supply

In its 18-month Outlook report of December 22, 2005 and in its Electricity Reliability Report of February 2, 2006, the IESO emphasized the necessity for a decision to be made early in 2006 to address the need for new supply for downtown Toronto. More specifically, the IESO has informed the Ministry that, despite increased demand

response and conservation efforts in the Toronto area, at least 250 MW of new supply is required in the downtown Toronto sector by the Summer of 2008, and at least a further 250 MW by 2010. In a joint letter to the Minister of Energy, dated January 11, 2006, Hydro One, Toronto Hydro Corporation and the OPA, joined with the IESO to re-iterate the need for this new supply with the connection point to be at the Hearn Switching Station.

Members of Ministry of Energy staff have reviewed the results of the Request for Proposals process and identified proponents with projects for supply in the downtown Toronto – Leaside Sector. Since late 2005, Ministry of Energy staff members have had discussions and solicited information from proponents regarding available options for new supply in the downtown Toronto – Leaside Sector. One of those proponents, the Portlands Energy Centre ("PEC") project, located adjacent to the retired Hearn plant, has submitted a proposal on January 27, 2006, and engaged in detailed discussions with Ministry staff for the purpose of determining mutually satisfactory terms and conditions under which the proposal could be accepted. It is the opinion of the Ministry that this proposal is the most advanced option, and the one most likely to meet the 2008 supply requirement.

Specifically, the PEC project is a proposed combined cycle natural gas-fired, co-generation-capable power plant that has a nameplate capacity of approximately 550 MW. PEC has developed a plan to achieve completion of the proposed facility in two stages: the delivery of a simple cycle operation with a capacity of 330 MW in June 2008, followed by the delivery of the combined cycle operation in early 2009. The Environmental Assessment for the combined cycle operation has been completed. None of the other potential options has started the environmental approvals process for its respective proposed project. Unlike other potential projects, the proposed PEC project was developed in accordance with the requirements of Request for Proposals and is advanced with respect to project design and costing.

Therefore, in light of the reliability requirement for new supply for the downtown Toronto – Leaside Sector by the summer of 2008, under subsection 25.32(4) of the Act, I hereby direct the OPA to proceed with the next stages of negotiations with PEC, based on the process proposed by PEC and the OPA on February 9, 2006, for the purpose of executing and delivering a definitive contract with PEC by May 2006. As part of these negotiations, it is expected that the OPA may need to provide PEC with certain interim financial guarantees or recoverable assistance to allow PEC to proceed with preparatory work on the project during the course of the negotiations, but before the contract is executed, with the purpose of expediting the project so that PEC will be able to generate electricity supply in time to meet the above critical timetable identified by the IESO. It is understood that, in the event that PEC and the OPA are unable to execute and deliver a definitive contract, the OPA may seek to recover its costs, if any, relating to the interim financial guarantees or assistance by using its statutory authority for cost recovery.

Conservation

In addition to the above supply initiative, the Ministry has, for the past two years, been engaged in various conservation outreach and education initiatives through its Conservation Partnerships program. Through this program, the Ministry has funded a number of initiatives specifically focused on the Toronto area with the intent of reducing electricity demand. These initiatives included:

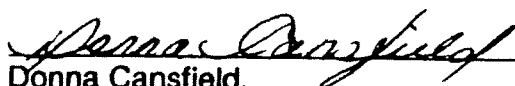
- 20/20 – The Way to Clean Air, a program to provide residents with tools to build an energy conservation program at home.
- Diversity Outreach Initiative, a conservation outreach program targeting non-English speaking communities in the GTA.
- TRCA Greening Health Care – Development of energy performance benchmarks for the Greening Health Care program of the Toronto and Region Conservation Authority. ✓
- EcoSchools – An innovative conservation outreach initiative targeted at Toronto area schools with a focus on operational improvements and teaching materials.

The IESO, in its February 2, 2006 Electricity Reliability Report and in the January 11, 2006 joint letter with Hydro One, Toronto Hydro Corporation and the OPA, to the Ministry of Energy, indicated that, in addition to generation, alternative and supplemental activities, including conservation and demand management initiatives, should be part of the solution to address Toronto's needs. In response, the Ministry began the process of expanding its Toronto-focused conservation initiatives begun under the Conservation Partnerships program. The expansion seeks up to 300 MW of demand side management and/or demand response initiatives in the Toronto area by 2010. The subject matter of this expansion is the basis for this direction to the OPA.

Therefore, pursuant to the authority granted me under subsection 25.32(4) of the Act, I hereby direct the OPA to assume, effective as of the date of this letter of direction, responsibility for seeking up to 300 MW of demand side management and/or demand response initiatives in the Toronto area by 2010. In recognition of Toronto Hydro's existing and planned conservation initiatives funded through to September 2007, it is expected that the OPA will work co-operatively with Toronto Hydro and the community in the Toronto area in order to avoid duplication of initiatives prior to that date.

This Directive shall be effective and binding as of the date hereof.

Dated: February 10, 2006


Donna Cansfield,
Minister of Energy

①

Minister of Energy

Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6715
Fax: 416-327-6754

Ministre de l'Énergie

Édifice Hearst, 4^e étage
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416-327-6715
Téléc.: 416-327-6754

2.



March 10, 2006

Mr. Jan Carr
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, Ontario
M5H 1T1

Dear Mr. Carr:

Re: Conservation and Demand-Side Management Initiatives (Residential Sector)

I write in connection with my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction which I have in respect of the Ontario Power Authority (the "OPA") under subsection 25.32 (4) of the *Electricity Act, 1998* (the "Act"), in order to direct the OPA to assume responsibility for the Government's initiatives relating to energy conservation and demand-side-management ("CDM") in regards to the residential sector.

The Ministry of Energy has, for the past two years, been pursuing a set of conservation initiatives that specifically focus on the residential sector. These initiatives have included the funding, through the Ministry's Conservation Partnerships Program, of three conservation initiatives targeted for the residential sector, as set out below:

- "Energy Star for New Homes", the development of a labelling program for new homes which would identify and help market new homes that are energy efficient;
- "Training Seminars for Energy Star for New Homes", a seminar for builders to become knowledgeable and aware of the Energy Star for New Homes label;
- The "Net Zero Energy Forum", a forum to bring together major stakeholders to discuss and chart next steps in the development of advanced home design concepts. ✓

.../cont'd

Recently, the Ministry began the process of expanding its residential-focused conservation initiatives under the Conservation Partnerships program. The expansion ("Conservation Partnerships – Residential") seeks up to 150 MW of demand side management and/or demand response initiatives and would be based on two key initiatives:

- (i) a program to achieve energy efficiency improvements on existing electrically heated houses;
- (ii) a program to carry out energy efficiency improvements to residential properties and the equipment or appliances in such properties, including but not limited to energy audits, air conditioning tune-ups, and the provision and installation of programmable thermostats and low-flow showerheads, with one element of this program being an education and incentive program.

Therefore, pursuant to the authority granted me under subsection 25.32(4) of the Act, I hereby direct the OPA to assume, effective as of the date of this letter of direction, responsibility for these two initiatives. More particularly, it is expected that the OPA would commence implementation by no later than the fall of 2007, through such procurement contracts and activities as the OPA determines to be advisable, a program based on the Government's CDM initiatives, that would reduce overall electrical energy consumption and demand in the residential sector by up to 150 Megawatts ("MW").

This Direction shall be effective and binding as of the date hereof.

Sincerely,



Donna Cansfield
Minister

Minister of Energy
Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6715
Fax: 416-327-6754

Ministre de l'Énergie
Édifice Hearst, 4^e étage
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416-327-6715
Télec.: 416-327-6754



March 10, 2006

Mr. Jan Carr
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, Ontario
M5H 1T1

Dear Mr. Carr:

Re: Conservation and Demand-Side Management Initiatives Commercial Buildings and MUSH Sector)

I write in connection with my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction which I have in respect of the Ontario Power Authority (the "OPA") under subsection 25.32 (4) of the *Electricity Act, 1998* (the "Act"), in order to direct the OPA to assume responsibility for the Government's initiatives relating to energy conservation and demand-side-management ("CDM") in regards to the MUSH sector - comprising municipalities, universities, schools, and hospitals.

The Ministry of Energy has, for the past two years, been pursuing a set of conservation initiatives that specifically focus on commercial buildings and the MUSH sector. These initiatives have included the funding, through the Ministry's Conservation Partnerships Program, of various conservation initiatives targeted for commercial buildings and the MUSH sector, as set out below:

- "Turning Contractors into Energy Efficiency Promoters", an outreach program developed to train commercial building contractors so that they may help inform their clients on energy efficient solutions;
 - "Cool Shops", a small to medium commercial business outreach program designed to increase energy efficiency and awareness on conservation issues;
 - "Green Health Care", a program which encourages and promotes energy efficiency and environmental responsibility in the health care field;
- Johnston*

... /cont'd

- *"Schools for the Future"*, a two day conference with school board decision makers from across Ontario to discuss conservation programming in schools and innovative capital financing for energy efficiency retrofit projects;
- *"Ontario Colleges Efficiency Project"*, the development of an energy audit, retrofit and financing strategy for Ontario colleges;
- *"Energy Efficient Schools"*, the development of energy performance baselines for 20 York Region schools for the purpose of demonstrating energy performance and savings through better school design.

Recently, the Ministry began the process of expanding its commercial buildings and MUSH conservation initiatives under the Conservation Partnerships program. The expansion ("Conservation Partnerships – CB/MUSH") seeks up to 150 MW through a variety of demand side management and/or demand response initiatives.

Therefore, pursuant to the authority granted me under subsection 25.32(4) of the Act, I hereby direct the OPA to assume, effective as of the date of this letter of direction, responsibility for this expanded initiative. More particularly, it is expected that the OPA would commence implementation by no later than the fall of 2007, through such procurement contracts and activities as the OPA determines to be advisable, a program based on the Government's CDM initiatives, that would reduce overall electrical energy consumption and demand in commercial buildings and the MUSH sector by up to 150 Megawatts ("MW"). In addition, it is expected that this expanded initiative would build upon any CDM initiatives being undertaken through the Toronto Reliability Supply and Conservation Directive, issued February 10, 2006.

This Direction shall be effective and binding as of the date hereof.

Sincerely,



Donna Cansfield
Minister

Minister of Energy
Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6715
Fax: 416-327-6754

Ministre de l'Énergie
Édifice Hearst, 4^e étage
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416-327-6715
Télééc.: 416-327-6754



DIRECTION

To: Ontario Power Authority

Attention: Mr. Jan Carr, Chief Executive Officer

Re: Conservation and Demand-Side Management Initiatives (Residents of Low-Income and Social Housing)

I write in connection with my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction which I have in respect of the Ontario Power Authority (the "OPA") under subsection 25.32 (4) of the *Electricity Act, 1998* (the "Act"), in order to direct the OPA to assume responsibility for the Ministry of Energy's (the "Ministry") Initiatives relating to energy conservation and demand-side-management ("CDM") in regards to residents of low-income and social housing.

The Ministry has, for the past two years, been pursuing a set of conservation initiatives that specifically address the needs of residents of low-income and social housing. These initiatives have included the funding, through the Ministry's Conservation Partnerships Program, of four conservation programs targeted for residents of low-income and social housing, as set out below: ✓

- The "*Social Housing Energy Management Pilot Program*" ("SHEMPP"), a pilot program currently operating to provide a comprehensive energy management strategy designed for social housing service providers; ✓
- The "*Low Income Conservation Education Program*", a tenant-to-tenant education and outreach program being piloted in certain social housing residential complexes across Ontario;
- The "*Conserving Homes*" Program, which was initially designed to be an energy conservation program for low-income households and which is currently being piloted by a local distribution company (or "LDC"); and, ✓
- "*Low-Income Demand-Side Management ("DSM") Strategies for LDCs*", a set of studies prepared for LDCs which are intended to assist them in formulating strategies to address the conservation needs of low-income customers.


Recently, the Ministry has created its own new low-income CDM initiative, by approving an expansion of the Ministry's role in SHEMA to include conservation and DSM strategies for residents of low-income households, adding this facet to SHEMA's existing mandate of addressing the consumption of residents of social housing. This new initiative (the "Ministry's Low-Income CDM Initiative") is the basis for this direction to the OPA.

Therefore, pursuant to the authority granted to me under subsection 25.32(4) of the Act, I hereby direct the OPA to assume, effective as of the date of this letter of direction, responsibility for the Ministry's Low-Income CDM Initiative, and to further pursue this initiative which is designed to address the consumption of residents in low-income and social housing, such CDM initiative having been previously pursued by the Crown.

More particularly, it is expected that the OPA will commence implementation by no later than the summer of 2006, through such procurement contracts and activities as the OPA determines to be advisable, a program based on the Ministry's Low-Income CDM initiative, that will reduce overall electrical energy consumption and demand by residents of low-income and social housing by up to 100 Megawatts ("MW"). It is also expected that the Program will result in longer-term reductions in electricity peak demand, particularly by reducing the use of inefficient appliances by such residents. It is further expected that the Program will include a comprehensive package of energy efficiency measures that are designed to address these goals.

This Direction shall be effective and binding as of the date hereof.

Dated: October 6, 2005



Dwight Duncan
Minister of Energy

JUL 13 2006

Minister of Energy

Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6715
Fax: 416-327-6754

Ministre de l'Énergie

Édifice Hearst, 4e étage
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416-327-6715
Télec.: 416-327-6754



5

July 13, 2006

Dr. Jan Carr
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, Ontario
M5H 1T1

Dear Dr. Carr:

Subject: Coordination and Funding of LDC activities to deliver Conservation and Demand-Side Management Programs

I write pursuant to the statutory power of Ministerial direction which I have in respect of the Ontario Power Authority (the OPA), under subsection 25.32 (4) of the *Electricity Act, 1998* (the Act), in order to direct the OPA to assume responsibility to coordinate and fund the delivery of electricity conservation and demand-side management (CDM) programs by local distribution companies (LDCs) in Ontario.

As Minister of Energy, I wrote to all LDCs on May 31, 2004 to encourage them to initiate CDM activity in their service territories. I also asked the Ontario Energy Board (OEB) to establish a process to fund those activities. LDCs submitted plans for about \$163M worth of CDM projects to be initiated in a three year period, not to exceed September 30, 2007 (Third Tranche funding).

Over the past six months, this ministry convened the Electricity Conservation Working Group to discuss issues regarding CDM delivery by LDCs once the Third Tranche funding has been exhausted or expired.

The Ministry of Energy subsequently undertook an initiative to establish a program from which LDCs could secure funds to continue delivering conservation and demand management programs after the expiry of the \$163 million pool of funds. Such a fund would have as its aims to:

.../cont'd

July 13, 2006

- Provide stable and secure funding to LDCs over a three year period; and,
- Improve coordination and accountability for LDC CDM programs by establishing clear funding guidelines and reporting requirements.

Therefore, pursuant to the authority granted to me under subsection 25.32(4) of the Act, I hereby direct the OPA to assume, as of the date of this letter, responsibility for organizing the delivery and funding of CDM programs through LDCs in Ontario in accordance with the following guidelines. I expect the OPA to carry out any necessary processes to acquire the increased resources required to meet this objective.

Principles

1. The objective of funding CDM programs is to assist the Government of Ontario in achieving its goals in electricity conservation and demand management.
2. LDCs have a legitimate and unique role in CDM delivery. They should be key conservation delivery agents, helping to grow the culture of conservation.
3. Funding to LDCs should be secure, stable and multi-year.
4. The Conservation Bureau will manage the overall CDM program design and the measurement and verification of results.
5. The relationship between the OPA and LDCs will be managed contractually.

Funding

1. The OPA will begin organizing the delivery and funding of CDM programs through LDCs immediately, with implementation of funding to occur in the earliest practical timeframe.
2. The funding will be limited to a total of \$400 million over three consecutive years.
3. Funds will be collected under the "Global Adjustment Mechanism" to the approved level. LDCs would contract to deliver programs funded by an OPA-administered LDC fund on a non-competitive basis in their territory.
4. These funds will not include provisions for smart meters.
5. The OPA should support the Ontario Energy Board in its continuing efforts to reduce barriers to CDM including decreases in revenues due to LDC's conservation programs.

Delivery and Oversight

It is expected that:

1. The OPA will, in consultation with LDCs and the Ministry, develop prudent guidelines to follow when contracting for CDM programs with LDCs.

When does this come out?

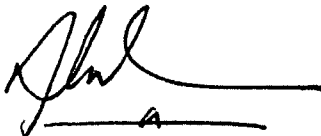
.../cont'd

2. The OPA will design a standard set of programs that LDCs can contract to deliver in their service territories, which may include consumer awareness and education programs, market capacity building, and market transformation programs. ✓
3. LDCs may submit CDM proposals to the OPA and the OPA will accept, reject or modify those proposals.
4. OPA will ensure that all areas of the province have access to an appropriate set of CDM programs. To achieve this purpose, the OPA may directly or through a third party deliver CDM programs in those areas where LDCs do not enter into contracts with the OPA or where LDCs do not deliver all necessary CDM programs.]
5. The OPA will ensure that an accountability framework is in place and review the activity and results against such framework. The OPA will report annually to the Minister with respect to this fund.

The above-described LDC fund does not preclude additional OPA activities with or without LDC participation. LDCs may participate in other OPA CDM programs.]

This Direction shall be effective and binding as of the date of this letter.

Sincerely,



Dwight Duncan
Minister

c: Howard Wetston, Chair, Ontario Energy Board

Minister of Energy

Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6718
Fax: 416-327-6764

Ministre de l'Énergie

Édifice Hearst, 4^e étage
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416-327-6718
Téléc.: 416-327-6764



FEB - 9 2006

Mr. Jan Carr
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, Ontario
M5H 1T1

Dear Mr. Carr:

Re: Addendum #1 to Procurement Processes Directive of June 15, 2005

I write in connection with my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority (the "OPA") under section 25.32 of the *Electricity Act, 1998* (the "Act").

On June 15, 2005, the Minister of Energy, my predecessor, the Honourable Dwight Duncan, issued a directive to the OPA entitled "Re: Immediate Launch of Procurement Processes to address needs in Downtown Toronto, Western Greater Toronto Area, and to develop additional Demand Management, Demand Response and High Efficiency Combined Heat and Power Supply" (the "original June 15th directive").

This is an addendum to the original June 15th directive. This addendum is to be read with and considered part of the original June 15th directive and collectively they are henceforth to be considered to be a single directive (the "consolidated June 15th directive").

The purpose of this addendum is to clarify the intent of certain words used in giving direction, as follows:

- 1) On page 2 of the original June 15th directive, in the second bullet point, the words "or more" in the clause "250 MW or more" are to be interpreted as "up to 500 MW."
- 2) In the consolidated June 15th directive, the words "up to," when used in each category for procurement, are to be interpreted so as not to exclude a project being considered for selection (the "subject project") merely because the number of megawatts to be achieved by the subject project would exceed the difference

.../cont'd

-2-

of megawatts to be achieved by the subject project would exceed the difference between the total, cumulative number of megawatts of the other, selected projects and the stated limit for the procurement (the "margin"), provided that the following conditions are met:

- a) The total number of megawatts of the selected projects of higher ranking in the evaluation in that category is cumulatively less than the limit;
 - b) The subject project is ranked immediately following the last selected project in that category; and
 - c) The total number of megawatts for all selected projects, including the subject project, do not exceed the limit by more than 25%.
- 3) In the consolidated June 15th directive, the words "subject project" are be interpreted to include each project where two or more projects are tied in ranking.

Sincerely,



Donna Cansfield
Minister

Ministry of Energy
and Infrastructure

Ministère de l'Énergie
et de l'Infrastructure

MAR 10 2010



Office of the Minister

Bureau du ministre

4th Floor, Hearst Block
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6758
Fax: 416-327-6754
www.ontario.ca/MEI

4^e étage, édifice Hearst
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416 327-6758
Téléc.: 416 327-6754
www.ontario.ca/MEI

March 4, 2010

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Am 10

Dear Mr. Andersen:

RE: Industrial Transmission Connected Electricity Efficiency Program

I write pursuant to my authority as the Minister of Energy and Infrastructure, in order to exercise the statutory powers of ministerial direction which I have in respect of the Ontario Power Authority (the "OPA") under subsection 25.32(4.1) of the *Electricity Act*, 1998, as amended.

Pursuant to my authority as Minister of Energy and Infrastructure, I direct the OPA to undertake the responsibility for creating and delivering an industrial energy efficiency program (the "Program") with the objective of achieving cost-effective conservation through industrial process improvements that bring energy efficiency gains. This objective may be achieved by encouraging industrial consumers to make capital expenditures in relation to energy efficient measures. Incentives to participants may be determined on the basis of considerations that may include, but are not limited to, the costs of project design or the selection, purchase and installation of energy efficient measures.

The Program will be an integral part of the OPA's effort to help the Province reach its aggressive conservation targets by providing incentives to industrial consumers to invest in energy efficiency and conservation, including by increasing industrial facilities' own investments. The objective of these investments will be to create jobs, contribute to gross domestic product growth and will help Ontario industries to remain competitive in future years. They are also intended to assist in meeting the Province's greenhouse gas reduction goals.

Now therefore, pursuant to my statutory authority under subsection 25.32(4.1) of the *Electricity Act*, 1998, I hereby direct the OPA to undertake the design and implementation of the Program according to the following guidelines:

Guidelines:

1. The OPA shall deliver the Program to industrial consumers directly connected to the IESO controlled grid.
2. The Program shall provide a five-year period within which industrial consumers may agree to participate in the Program (Participating Consumers). Funding for the Program shall be available to provide Participating Consumers two years to complete implementation of projects.

.../cont'd

Schedule 3

In Volume 1 of the transcripts, the following exchange can be found at page 49.

MR. DeROSE: Okay. Thank you.

And then can we go to Board Staff 27, which is Exhibit I, tab 1, schedule 27?

This is on the general efficiency metrics, but again on value for money, (c):

"Does the OPA consider that the efficiency metrics provide an indication of whether the OPA achieved value for money for ratepayers in the performance areas tracked?"

And your answer is that: "Value for money is assessed through specific audits performed at the program level."

First of all, have any of these type of audits taken place to date?

MR. GABRIELE: Can I ask you to clarify which programs you're specifically interested in?

MR. DeROSE: Well, the question was broadly based and you provided the answer. I don't know what programs you were considering when the answer was provided, but let me start it broad based.

Have any audits been undertaken in this context to assess value for money in any program in the OPA?

MR. GABRIELE: There have been no audits on efficiency metrics that I'm aware of. }

And again at page 159:

MR. CRONKWRIGHT: Yeah, in terms of contract terms, the majority of the OPA contracts are for 20-year terms, although we do have select contracts that are either on 10-year terms or longer.

MR. FAYE: Okay. Thanks for that.

Right. Where I'm heading with this is I don't really see how this is an efficiency metric. Once the generation is contracted, and it is unlikely to escape that contract for the period of the contract, at least 10 years, more commonly 20, from what you just said, how does that get translated into efficiency by dividing it by the number of, say, FTEs that you have? What's the efficiency implications of dividing the total power you've contracted by the number of people that you've got in your organization?

MR. GABRIELE: What we are attempting to do at the OPA is to provide measures that are results-based and some, hopefully, in terms of the milestones and the results that we report on in terms of the activity-based, to give sort of a fulsome analysis of all of our activities and, from that, deduce the efficiency.

So this is just a component of how you would address efficiencies of the OPA. So as our mandate is to build reliable and efficient supply, I would hope that the metric would show a continuing increase in the supply, as necessary.

MR. FAYE: I can kind of see the logic there. Your mandate is to get supply contracted, but dividing it by your number of staff -- let me ask you this.

If I look at the per FTE -- megawatts per FTE line, following that in-service capacity line, I see numbers that are increasing over the four-year period.

Does that mean that your efficiency is getting better?

MR. GABRIELE: What it demonstrates is that the management of the contracts on a going-forward basis, as well as the delivery of supply, is happening at a reduced cost per FTE -- not cost, but a reduced consumption of FTE.

In Volume 3 and pages 101-103:

MR. WARREN: My question is, do the efficiency metrics on that exhibit, do they measure whether or not ratepayer dollars have been effectively used through quality assurance and quality control processes? Is that measured by those OPA efficiency metrics?

MR. GABRIELE: The OPA efficiency metrics at Exhibit C, tab 1, schedule 1, page 3 are overall and results-based. They are not specific activity-based metrics. So the measure for the Board's approval would be the results reporting, the qualitative reporting, that we would supply in the 2012 rate case.

MR. WARREN: And the results reporting, in what form would that be that would measure whether or not ratepayer dollars have been used effectively? How do you measure that, panel?

MR. GABRIELE: On a-- for the use of the ratepayers' dollars, it would be a qualitative measure as to whether the processes were enacted and executed.

MR. WARREN: And the qualitative analysis is one which is prepared by the OPA or by an independent third party?

MR. GABRIELE: That is prepared by the OPA.

MR. WARREN: So the OPA sets itself certain targets, and if it-- for performance, and if it meets those targets it reports to the Board that it has met its quality standards; is that fair?

MR. GABRIELE: That would be correct.

MR. WARREN: You would, I take it, agree with me that there's a certain circularity to that, would you not?

MR. GABRIELE: Well --

MR. WARREN: You set the standards and then tell us whether or not you think you've met your own standards?

MR. GABRIELE: I'm not sure that there would be another way to do that.

MR. WARREN: You could do it by way of third-person, third-party audit; is that fair?

MR. GABRIELE: Could you go a little farther with that, please?

MR. WARREN: Well, if you set the standards-- first of all, your criteria for whether or not ratepayer dollars are effectively used, those are standards which you have set yourself. Fair?

MR. GABRIELE: We set the milestones and the initiatives and then measure our performance against those.

MR. WARREN: Those milestones and initiatives, were they assessed by a third party?

MR. GABRIELE: They are assessed at this -- at this revenue requirement case.

MR. WARREN: That's the forum in which it's done; is that correct?

MR. GABRIELE: That's correct, yeah.

MR. WARREN: Okay.

MS. McNALLY: Sorry --

MR. WARREN: And with respect to the milestones themselves, if you could turn them up. Exhibit B, tab 2, schedule 1, page 15.

MS. McNALLY: Sorry, if I'm just -- I want to build on Mr. Gabriele's response before we go to the next page, and I just want to distinguish between at least two pieces, because I think we've got a few ideas around. One is around the quality assurance and quality control within the LDC programs and the master agreement. And that is one set of issues. And in that case, as I mentioned, in the master agreement there are contractual provisions around good governance, in terms of quality assurance, inspections, 7.2, so that's Exhibit I-2-4, attachment 1. I'm at page 37 of 97, at 7.2. "OPA has the right to do an inspection or technical audit", OPA directly or through its designate, so there's certainly provision for a third-party quality audit under the contract. So that's one bundle of issues. And then the second bundle of issues, which Mr. Gabriele was talking to, which is a separate set of issues around OPA activities.

MR. WARREN: Exhibit B, tab 2, schedule 1, page 15, "in the first year of the planning period, the conservation division will have reached the following milestones", and you've got five bullet items. Do you see those there?

MS. McNALLY: Yes.

MR. WARREN: Let me take the fifth one:

"Conducted evaluations to verify results for all CDM programs, including results at an LDC level in support of the OPA contracted province-wide CDM programs."

So a measure of whether or not ratepayer dollars are being used effectively is the fact that you've conducted evaluations. Have I got that right?

[Witness panel confers]

MS. McNALLY: So the milestone here that we're looking at, Exhibit B, tab 2, schedule 1, the first milestone for 2011 is that we have implemented a portfolio of newly designed programs and worked with local distribution companies and other delivery agents to deliver peak demand reductions in energy savings, and one of the elements of ensuring that that milestone has been met is that evaluations are conducted on the programs. So that is an activity or a measure a marker that the milestone of implementing the portfolio and delivering the result is achieved.

MR. WARREN: I guess my difficulty, Ms. McNally and members of the panel -- and I don't know whether you can help me with this difficulty or not -- is that you've set yourself tests, milestones. And all you have to do is do things.

But there's no measure of whether or not you've done them well. There's no measure of whether or not you've spent the money efficiently. There's no measure in this that any objective observer could look at to see whether or not ratepayer dollars have been spent effectively.

Would you agree with that?

[Witness panel confers]

MS. McNALLY: I'm going to ask Mr. Gabriele to answer that question.

MR. WARREN: Please.

MR. GABRIELE: Measuring activities is an inherently difficult exercise, but I would say that we provide a number of efforts at corralling the measures of effectiveness for the OPA.

Schedule 4

Table 1: OPA-Estimated Incremental Annual GWh Savings (2011-2014)³

Initiative		2011	2012	2013	2014
LDC Obligations					
OPA Province-Wide Programs	91%	519	649	708	729
Supplemental LDC programs	9%	51	64	70	72
Total	100%	570	713	778	801
Other Programs					
Transmission-Connected Industrial Accelerator Program		12	163	407	698
OPA-Delivered Demand Response Programs		4	5	5	5
Total		16	168	412	703
Grand Total		586	881	1,190	1,504

As Table 2 shows, OPA is forecasting that the amount of energy savings from these and other past programs that will be persisting in 2014 is about 5.6 TWh. Roughly half of that amount will come from new LDC obligations, roughly 20% will come from the Transmission-Connected Industrial Accelerator Program and roughly 30% will come from savings persisting from 2006-2010 OPA programs.

Table 2: OPA-Estimated Cumulative Persisting Annual GWh Savings (2011-2014)⁴

Initiative		2011	2012	2013	2014
2011-2014 LDC Obligations					
OPA Province-Wide Programs	91%	519	1,136	1,766	2,419
Supplemental LDC programs	9%	51	112	175	239
Total	100%	570	1,248	1,941	2,658
2011-2014 Other Programs					
Transmission-Connected Industrial Accelerator Program		12	174	581	1,279
OPA-Delivered Demand Response Programs		4	5	5	5
Total		16	179	586	1,284
Savings Persisting from 2006-2010 OPA Programs					
		2,108	1,775	1,762	1,647
Grand Total		2,694	3,202	4,289	5,589

³ Savings for OPA Province-wide programs from OPA response to GEC Interrogatories 11 (for 2011) and 14 (for 2012 through 2014). Savings from Supplemental LDC programs estimated based on OPA assumption that LDCs will achieve approximately 91% of their targets through participation in OPA-Contracted Province Wide programs (response to GEC Interrogatory 15). 2011 savings from other programs from Ex I, Tab 4, Attachment 1. 2012-2014 savings from other programs from OPA response to GEC Interrogatory 15.

⁴ Ibid. Savings persisting from 2006-2010 OPA programs based on OPA responses to GEC Interrogatories 11 and 14. Analysis assumes the rate of persistence of the Supplemental LDC programs will be the same as for the OPA Province-Wide programs.