

## ONTARIO ENERGY BOARD

**IN THE MATTER OF** the *Ontario Energy Board Act*,  
1988, S.O. 1998, C.15, Schedule B.

**AND IN THE MATTER OF** a proceeding initiated by  
the Ontario Energy Board to make certain  
determinations respecting conservation and demand  
management (“CDM”) by Local Distribution  
Companies (“LDC”) activities as described in the  
Electric Distribution Rates (“EDR”) Handbook and  
Total Resource Cost (“TRC”) Guide pursuant to  
sections 19(4) and 78 of the *Ontario Energy Board Act*,  
1998.

### AFFIDAVIT OF TODD WILLIAMS

I, **TODD WILLIAMS**, of the City of Kingston in the Province of Ontario, **MAKE OATH AND SAY:**

#### **A. Introduction**

1. I am an engineer and consultant with Navigant Consulting Ltd. I have previously provided evidence on matters related to the DSM framework for Enbridge Gas Distribution at an OEB hearing. Attached as Exhibit “A” is a current copy of my *curriculum vitae*.
2. I am a Director of Kingston Electricity Distribution Limited and, through my work with Navigant Consulting, have provided independent advice to a variety of Ontario electric Local Distribution Companies (LDCs), their Boards of Directors and their shareholder on various strategic, operational and regulatory matters, including conservation and demand management in the past eight years. This evidence reflects the insights gained through my provision of this independent advice.
3. Except where I have obtained information from other sources, I have personal knowledge of the matters discussed here. I declare that I verily believe all information to be true.

4. I swear this evidence as part of the Ontario Energy Board proceeding EB-2005-0523 with respect to various CDM matters and I do not swear this evidence for any improper purpose.
5. I have been retained by Hydro One Networks Inc. (Hydro One) to provide this evidence. My evidence does not deal directly with Hydro One's CDM plan, but rather reflects my understanding of the perspective of LDCs in general on the issues at question in the above mentioned proceeding. I believe it fairly represents the views of many LDCs across Ontario based on my experience working with LDCs over the past eight years.
6. This evidence deals with the three issues raised in EB-2005-0523 related to Electricity Conservation and Demand Management Activities.
7. Whether the Board should order an LDC to spend money on CDM programs in an amount that is different from the amount proposed by an LDC in a test year and, if so, under what circumstances?
8. Whether the Board should require LDCs to demonstrate free-ridership levels for all programs on a program by program basis?
9. Whether the Board should order that an LDC should only be entitled to claim incremental benefits associated with participation in a CDM program with a non-rate regulated third party?

## **B. Summary**

10. Each of these issues is addressed below. In summary, Ontario's electric LDCs are operating in a new territory with respect to CDM. While I believe that LDC-driven CDM programs are a key component of Ontario's overall energy policy, the full potential of these programs has yet to be realized. In the meantime, however, I think it would be prudent to allow LDCs to ramp up their CDM programs and budgets in a measured and studied manner. The "transitional" framework developed for so-called third-tranche CDM funding LDCs are currently operating under was deliberately structured to allow this measured ramp-up with limited risk to LDCs. Changes to this framework "after the fact" would increase the level of risk for LDCs.
11. With respect to the framework for second generation CDM funding (such as would be provided through LDCs' 2006 rate applications) I believe there is considerable uncertainty regarding 1) LDCs' ability to recover costs and lost revenues, 2) the criteria for assessing prudence of CDM spending, and 3) the ongoing role of LDCs and the CDM activities they should be pursuing vis-à-vis the OPA, the IESO and other entities. Furthermore, I believe that this uncertainty

is one of the key reasons why many LDCs have not requested additional CDM funding in their 2006 rate applications.

12. I believe it would be prudent to allow some time for LDCs to implement their planned CDM programs, and gain valuable CDM experience. Through the ongoing CDM reporting process outlined by the Board, I expect better information on various elements of CDM, such as program-specific free riders, will become available over time. Armed with this experience and information combined with resolution of uncertainties with respect to the CDM framework, LDCs would then be in a much better position to make decisions regarding possible expansion of their CDM programs.

**C. Whether the Board should order an LDC to spend money on CDM programs in an amount different from the amount proposed by the LDC?**

13. I believe it would be unusual and unprecedented for the Board to order an LDC to spend money on CDM programs in an amount that is different from the amount proposed by an LDC, particularly if the order is to spend more money than the LDC has requested (or more than has already been approved in the case of third-tranche CDM funding).
14. In considering this issue, I think it's worthwhile to review where LDCs are coming from with respect to CDM and where they are today. Consistent with government policy and regulatory rules at the time, Ontario LDCs had no significant CDM spending in the period immediately prior to 2004. Under a mechanism introduced by the government, LDCs then applied to the Board for and received approval for so-called "third tranche" CDM funding. The level of CDM funding approved by the Board varied significantly from LDC to LDC. For example, Hydro One is now implementing an ambitious CDM plan, with a total budget of almost \$40 million through 2007. Toronto Hydro is also implementing a similarly ambitious CDM plan with a total budget of almost \$40 million.
15. Ramping up CDM spending from a zero base creates several challenges for LDCs, particularly those with significant CDM budgets. Given the growing interest in conservation and the government of Ontario's conservation targets, LDCs must ramp up their CDM activities as quickly as possible without "over-extending" themselves. Mr. Goulding, the Board Staff's expert witness on CDM for the Board's proceeding on the Electricity Rate Handbook for 2006 Rates, raised his concerns respecting the utilities' "*absorption capacity*," given their attempts to spend the third tranche funding wisely.<sup>1</sup> In essence, LDCs must

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<sup>1</sup> RP-0024-0188, Transcript Volume 8, paragraphs 340, 571 - 573.

- carefully balance the desire for results against the risk of doing too much too soon, which could cause problems for customers, create risks for the LDC and reduce the overall effectiveness of their CDM plan.
16. I think that a comparison of Hydro One's CDM spending with recent DSM spending of Ontario's gas utilities highlights this tension. Union Gas, which has been offering DSM for many years and has well established DSM practices, had a 2005 DSM budget of less than \$10 million, whereas Hydro One, which has not been offering CDM programs for many years and is currently developing its CDM practices, has an annual CDM budget of roughly \$13 million (based on \$40 million being spent over three years). Both Union Gas and Hydro One have approximately the same number of customers - 1.2 million for Union and 1.1 million for Hydro One Networks. Hydro One's average annual CDM budget through 2007 is also roughly in line with the 2005 DSM budget for Enbridge Gas Distribution (Enbridge), another utility with a long history of DSM and well established DSM practices. Enbridge serves approximately 1.7 million customers and its 2005 DSM budget was \$15.3 million<sup>2</sup>. I understand that both Union Gas and Enbridge have proposed higher DSM budgets for 2006 and beyond, but it is important to recognize that any increase for these utilities would be on a well-established base.
  17. While the third tranche CDM funding can be spent through 2007, some LDCs were spending it faster than expected and the Board allowed LDCs to request additional CDM funds in their 2006 rate application (second generation CDM funding) beyond those already approved. To my knowledge, very few LDCs have done so. However, I believe that most LDCs are fully prepared to do so when they deem such a request to be appropriate.
  18. I see three primary reasons why LDCs have not requested additional CDM funds to date. Firstly, most LDCs' current CDM plans are fully funded through 2007. Secondly, given their developing CDM infrastructure and limited CDM experience, many LDCs may feel hard-pressed to effectively deliver the CDM programs they have already committed to deliver. Thirdly, through my past discussions with LDCs, it is clear to me that LDCs perceive there to be considerable uncertainty with respect to the details of the regulatory framework associated with cost recovery, lost revenue recovery and shared savings for second-generation CDM funding.
  19. Given the first two reasons cited above, I expect that most LDCs would not be in a position to determine whether to request additional CDM funds until late 2006

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<sup>2</sup> Footnote 2, page 2, Volumetric Savings and O&M Budget, Enbridge Gas Distribution, EB-2005-0001, Exhibit A7, Tab 2, Schedule 1.

- at the earliest. By that time, the Board and stakeholders will have had a chance to review the annual CDM reports submitted by LDCs and comment on the overall “prudency” of LDCs’ CDM activities. Perhaps more importantly, the regulatory framework and rules associated with ongoing CDM funding will likely be better defined and more certain at that time with, among other things, greater clarity on reporting requirements and the type and level of documentation necessary to clearly demonstrate prudent use of ratepayer funds for CDM purposes.
20. The Board’s recent November 22 decision on the matter of the Board’s authority with respect to Hydro One’s Electricity Transmission Licence and the Distribution Licences of various LDCs serving York Region also touched on the question of prudence with respect to LDC CDM expenditures. The decision stated that “...the Board reviews CDM expenditures for prudence and cost effectiveness.”<sup>3</sup> in considering LDC distribution rates. The decision also states that the Board’s authority “does not extend to ordering LDCs to engage in specific demand management activities.”<sup>4</sup> The Board’s focus on prudence is appropriate in its role as an economic regulator.
  21. Given the current dynamic among LDCs with respect to existing, unspent CDM funds, developing CDM infrastructures, limited CDM experience and uncertainty regarding the future CDM framework, I believe that fact that LDCs have not requested additional CDM funding is an implicit statement that 1) they do not feel that it would be prudent for them to increase their CDM budgets at this time or 2) even if they are confident and capable of “doing more CDM”, they are not fully comfortable they would be able to clearly demonstrate the prudence of any additional CDM spending, which would be imprudent. The Board gave LDCs the opportunity to request additional CDM funding, and most have chosen not to do so, in part, because I believe they do not believe it would be prudent to do so at this time. In the simplest terms, I believe one reason a large majority of LDCs have not asked for additional CDM funding is because they see it as being too risky – particularly given uncertainty regarding the CDM framework under which the prudency of their CDM programs would be assessed.
  22. Mandating certain levels of CDM expenditures has been debated, particularly during the Hearing on the 2006 EDR Handbook. However, as the Board then acknowledged in its Report on this very question, “It is difficult to define with

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<sup>3</sup> EB-2005-0315, Decision and Order, November 22, 2005, page 11.

<sup>4</sup> Ibid, page 10.

*precision the optimum level of spending on CDM.”<sup>5</sup> The Board accordingly concluded “that it is appropriate for Ontario’s distributors to continue with their existing commitments, but that a specific target for 2006 is not appropriate.”<sup>6</sup>*

23. If the Board is concerned that LDCs have not requested additional CDM funding, it may wish to better understand the reasons why instead of simply mandating that LDCs spend more on CDM. Clearly, availability of unspent third tranche CDM funding may be one factor leading LDCs not to request additional funding at this time, but perhaps a more important factor is uncertainty related to the overall CDM framework. Simply stated, LDCs may be unwilling to request additional funds when the “rules of the game” governing second generation CDM are not as well-defined nor as certain as they would like. Another area of uncertainty is the role of LDCs vis-à-vis the Ontario Power Authority and others in CDM. As the framework evolves over time, and the “rules of the game” and the role of LDCs are more fully defined, I am fully confident that more LDCs will request additional CDM funding and continue to help create a conservation culture in Ontario.

**D. Whether the Board should require LDCs to demonstrate free ridership levels for all programs on a program by program basis?**

24. With respect to the second issue – whether the Board should require LDCs to demonstrate free ridership levels for all programs on a program by program basis – I believe that doing so would be inconsistent with the transitional nature of what I would call the third-tranche CDM framework, in that detailed information which would enable a more precise determination of free-ridership levels is lacking. Spending time to determine these now could significantly delay LDCs’ CDM efforts and would divert funds from CDM implementation.
25. LDCs have developed their CDM plans and associated CDM programs based on the framework and rules governing third tranche CDM funding specified by the Board. These rules provide LDCs with some certainty regarding cost recovery, lost revenue recovery and potential shareholder incentives associated with their CDM activities. Without the level of certainty provided through the Board’s CDM framework and rules, I expect that LDCs would likely have very different CDM plans.

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<sup>5</sup> RP-2004-0188, “2006 Electricity Distribution Rate Handbook, Report of the Board, May 11, 2005, page 104.

<sup>6</sup> Ibid, page 105.

26. The Total Resource Cost Guide (TRC Guide) issued by the Board is a key element of the CDM framework for LDCs. Among other things, the TRC Guide specifies free ridership levels and other characteristics, such as summer peak kW reduction, for a variety of CDM measures.
27. Specifying and “locking-in” free ridership and other measure characteristics up front provides some certainty regarding cost recovery, lost revenue recovery and potential shareholder incentives. It also encourages LDCs to focus their CDM efforts on maximizing the number of program participants while keeping within their overall CDM budget.
28. Certainty with respect to the CDM framework and measure characteristics is important for LDCs. Retrospective changes to the CDM framework or measure characteristics create considerable risk for LDCs. Plans can be adjusted and optimized to reflect changes made on a prospective basis that would apply in the future, but it is impossible to change plans after the fact to reflect retrospective changes.
29. The issue of retrospective versus prospective changes is not unique to Ontario’s electricity LDCs. I have seen the DSM framework for Ontario’s gas utilities evolve gradually over time from one with considerable retrospective adjustments to one with a much greater emphasis on “locking in” key program parameters where new information is used prospectively, not retrospectively. This is also the case for the CDM frameworks governing utility incentive mechanisms in many other jurisdictions – new information is generally applied prospectively, not retrospectively.
30. Given this desire for greater certainty and concerns about retrospective adjustments, if LDCs were required to demonstrate free ridership on a program by program basis, it would be prudent for them to 1) develop these estimates up-front and 2) secure Board approval for the free ridership levels in advance of any significant program implementation activity. Otherwise, they would be exposed to considerable risk regarding cost recovery, lost revenue recovery and potential shareholder incentives. Hydro One estimates that it would take at least six months to estimate and secure Board approval for free ridership levels for all of its CDM programs and I expect it would take about the same time for most other LDCs. This would not only delay their program implementation but would also divert funds from CDM implementation. Considering the number of LDCs in Ontario and the number of CDM programs they are offering, the funds diverted to this effort would be significant.
31. In essence, I expect that requiring LDCs to demonstrate free ridership on a program by program basis will delay implementation of CDM programs and divert funds from program implementation. Both of which will reduce the level

of customer savings, which could also jeopardize realization of the government's CDM targets.

32. The Board has recognized the tension between implementing CDM now using available information or waiting for better information when it stated in Appendix A of the TRC Guide that: *"It is more important to ratepayers that distributors put effective conservation and demand management measures in place immediately, using the best available information, rather than delay for further study."*<sup>7</sup> This is fully consistent with the transitional nature of the third tranche CDM funding and associated framework. The framework may not be perfect, but it's a start and can be improved and refined over time.
33. As an example of such improvement and refinement, I expect that information from LDCs' future CDM evaluation efforts will provide valuable information regarding program-specific free ridership and other characteristics. This new information could then be used on a prospective basis for future CDM program and reporting activities.
34. Lastly, I think that most LDCs fully recognize that, in spite of the "locked-in" nature of the free ridership levels in the TRC Guide, the Board retains the option to address any significant discrepancies related to free ridership and other characteristics through its rate-setting process. As stated by the Board in Appendix A of the TRC guide: *"... the Board has the discretion to make adjustments to the incentive awards to the LDCs through the rate cases."*<sup>8</sup> So, the TRC Guide provides some valuable certainty to LDCs in terms of free ridership, but the Board retains ultimate authority to decide whether or not to make adjustments in the future.

**E. Whether the Board should order that an LDC should only be entitled to claim incremental benefits associated with participation in a CDM program with a non-rate regulated third party?**

35. The third issue -- whether the Board should order that an LDC should only be entitled to claim incremental benefits associated with participation in a CDM program with a non-rate regulated third party -- is closely related to the second issue. This is not surprising since free riders and "incremental" benefits are closely related -- one being essentially the opposite of the other. As with the issue

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<sup>7</sup> Page 7, Appendix A, Total Resource Cost Guide, Ontario Energy Board, September 8, 2005.

<sup>8</sup> Page 5, Appendix A, Total Resource Cost Guide, Ontario Energy Board, September 8, 2005.



of demonstrating free riders on a program by program basis, I believe that ordering that LDCs should only claim incremental benefits associated with participation in a CDM program with a non-rate regulated third party would be inconsistent with the transitional nature of the third-tranche CDM framework laid out in the TRC Guide, could significantly delay LDCs' CDM efforts and would divert funds from CDM implementation.

36. If LDCs were only entitled to claim incremental benefits associated with participation in a CDM program with a non-rate regulated third party, it would be prudent for LDCs to secure Board approval for 1) the methodology used to determine the incremental benefits and 2) any baseline benefits likely to be achieved through the third parties' efforts, absent any involvement with the LDC. Note that, given the number of third parties that LDCs are involved with and the diversity of these various joint programs, development of the methodology and determination of the appropriate baselines would not be a trivial exercise. Just like determination of free ridership on a program by program basis, this would delay CDM program implementation and divert funds from program implementation, reducing the level of customer savings and jeopardizing realization of the government's CDM targets.
  
37. I fully expect that information from the LDCs future CDM evaluation efforts will provide valuable information regarding the benefits associated with participation in a CDM program with a non-rate regulated third party and, possibly, how these benefits compare to those realized through the third party's activities in areas where they are not participating with an LDC. This new information could then be used to determine an appropriate free ridership level that would be applied to the relevant CDM program on a prospective basis for future planning and reporting purposes.

**SWORN** before me at the )  
 City of Toronto, in the Province )  
 of Ontario, on this 2<sup>nd</sup> day of )  
 December, 2005 )  
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 A Commissioner for taking affidavits, etc. )

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 TODD WILLIAMS



CURRICULUM VITAE

TODD S. WILLIAMS

Experience:

Navigant Consulting Ltd. (Toronto)

Associate Director

1999 - Present

SRC International Pty Ltd (Melbourne).

Manager

1994 - 1998

Synergic Resources Corporation (Philadelphia).

Product Manager

1993

Ontario Hydro (Toronto).

Project Manager, Customer/Sales Management System

1993

Superintendent, Residential Program Support

1992

Senior Supervisor, Program Management Divisional Services

1990

Market Planner, Western Region

1989

Program Supervisor, Energy Management

1984

Nuclear Design Engineer

1983

RISØ National Laboratory (Denmark)

Nuclear Design Engineer

1982

Education: Bachelor of Science Honours (Engineering Physics)  
Queen's University, 1983

Master of Business Administration  
Ivey School of Business, University of Western Ontario, 1990

Memberships: Professional Engineers of Ontario

Publications/ Projects: Blueprint for Demand Response in Ontario (assignment to Independent  
Electricity Market Operator)

Development and delivery of various residential, commercial and industrial DSM programs (Ontario Hydro)

Principles of DSM - Training in Pacific Islands

Y9 Tariff Project Monitoring (water heater load shifting pilot program design and evaluation report)

Demand Side Management in the Philippines (contribution to report for World Bank)

Energy End-Use Database for Hong Kong (structural and sampling frame design)

Demand Management Program Monitoring System (design and development of DSM tracking system for SEQEB, a Queensland utility)

DM Tracking System (design, development and implementation of DSM tracking system for the Office of Energy Management, Queensland)

Capacity Support Bid Development (demand-side bid to Victorian Power Exchange by Powercor, a Victorian retailer)

Business Energy Market Analysis and Channel Research (Hydro-Electric Commission, Tasmania)

Testimony

Mr. Williams has testified before the Ontario Energy Board on one occasion.