Ontario Energy Board

RP-2004-0188

A Lost Revenue Adjustment Mechanism and a Shared Savings Mechanism for Ontario's Electric Utilities

Pre-filed Evidence of

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On Behalf Of

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Introduction

This evidence will provide the rationale, and specific proposals, for a lost revenue adjustment mechanism (LRAM) and a shared savings mechanism (SSM) with respect to Ontario's electric utilities' 2006 customer side of the meter conservation and demand management programmes.

Background

On November 25, 2003 Ontario's Energy Minister, the Honourable Dwight Duncan, announced that Ontario's electric utilities would be able to earn their full commercial return on capital, effective March 1, 2005, if they reinvest "the equivalent of one year of these monies in conservation and demand management initiatives".[1] According to Minister Duncan, this initiative will create an initial energy conservation budget of approximately $225 million for Ontario's electric utilities.[2]

If Ontario's electric utilities implement energy conservation programmes that are as cost-effective as those of Enbridge Gas Distribution, their initial conservation programmes will lead to a $1.575 billion net reduction in their customers' bills.[3]

In his April 15, 2004 speech to the Empire Club, Minister Duncan announced that the "current disincentives" for electric utilities to promote conservation will be removed and that the utilities will "benefit" from promoting conservation. Minister Duncan also said that Ontario's electric utilities will play a key role in building a "conservation culture in Ontario".

> "Our sector reforms would also support conservation at the local level. The Ontario Energy Board would also establish a framework to help local distribution companies deliver energy conservation programs as appropriate. The current disincentives for local distribution companies would be removed, and LDC's would benefit from empowering their customers to conserve electricity and making their own systems more efficient.
>
> We believe that LDCs can and should be agents of change at the local level to promote conservation. LDCs are extremely well placed to encourage conservation and energy efficiency in the communities they serve, and we will need all their expertise, ingenuity and leadership to help build that conservation culture in Ontario."[4]

In his April 19, 2004 statement to the Legislative Assembly, Premier McGuinty said that his Government is committed to: a) phasing out our dirty coal plants; b) reducing the demand for electricity by 5% by 2007; and c) creating a culture of conservation:

> "Mr. Speaker, Ontario cannot grow a strong, 21st century economy by relying on obsolete sources of energy.

That's why our government is committed to replacing the dirty coal plants that are polluting our air and damaging our health…

Our government's goal is ambitious: to reduce electricity use by five per cent across the province by 2007…

Our government is taking bold action to help make Ontario a North American leader in conservation.

Mr. Speaker, I'm not talking about approaches that have been used in the past…such as introducing a few government programs or printing glossy brochures.

I am talking about nothing less than creating a profound shift in the culture of this province.

About moving from a culture of inefficiency to a culture of innovation.

About moving from a culture of waste to a culture of conservation…

A culture of conservation will help Ontario build a high-skills, high-tech, high-performance economy by rewarding and encouraging innovation.

This, in turn, will help stimulate investment, create jobs and build a stronger, more sustainable economy."[5]

Lost Revenue Adjustment Mechanism (LRAM) for 2006
To ensure that the electric utilities will not be penalized for implementing effective, customer-side of the meter, conservation programmmes in fiscal 2006, they should be allowed to recover, in a subsequent rate year, the lost distribution revenues plus carrying costs that they experience between May 1, 2006 and April 30, 2007 inclusive as a result of their energy conservation programmes.

Scenario #1: Fiscal 2006 rates are not a function of a load forecast which takes into account the impact of the utilities' conservation programmes.
A utility's lost distribution revenues, for each rate class, should be calculated by multiplying the *incremental* reduction in its kWh and kW volumes, as a result of its conservation programmes, by its distribution charges per kWh and kW.

For example, for a residential programme, the annual savings associated with a conservation programme should equal the number of participants, net of free-riders, times the average kWh saving per participant. (Free-riders are programme participants that would have undertaken the conservation measure in the absence of the utility's conservation programme.) For example, assuming 12 participants and 2 free-riders and a

saving per participant of 20 kWh per year; the annual incremental savings would be 200 kWh per year. [(12 participants – 2 free-riders) x 20 kWh per year per participant].

If all the participants implemented the energy conservation measure on May 1, 2006, the utility's annual lost revenues would be 200 kWh multiplied by its distribution charge, say 1 cent per kWh. That is, $2.00. However, if the conservation programme's 12 participants joined at one month intervals during the year, the utility's annual kWh savings and lost revenues would be 100 kWh and $1.00 respectively. For simplicity, an assumption of an average of 6 months should be utilized. In this example this would yield an LRAM of $1.00.

For mass market conservation programmes (e.g., residential), it will usually be appropriate to use an estimate of the average kWh saving per participant. However, for custom conservation programmes that are designed for specific large volume customers, a customer specific kWh saving estimate will be needed.

When a conservation programme is jointly delivered by an electric utility and one or more partner organizations (e.g., NRCan, a natural gas utility), it will be necessary to calculate the incremental kWh saving and lost revenues that are due the electric utility's participation in the programme. If the programme would not have gone ahead in the utility's franchise area, without the utility's participation, the incremental savings due to the utility's participation are equal to 100% of the programme's total savings.

On the other hand, if the programme would have proceeded without the utility's participation, the utility's lost revenues will be a function of: a) the incremental number of participants, net of free riders; and/or b) the incremental savings per participant as a result of the utility's participation. For example, assume without the utility's participation the programme would have 50 participants and a saving of 100 kWh per participant. If the utility's participation simply increased the programme's number of participants to 75, the incremental savings as a result of the utility's participation would be 2500 kWh (25 participants x 100 kWh per participant). On the other hand, if the utility's participation increased the number of participants by 25 and increased the average savings per participant by 30 kWh; the incremental savings as a result of the utility's participation would be 4750 kWh [(25 new participants x 130 kWh per participant) + (50 original participants x 30 kWh incremental saving per participant)].[6]

Scenario #2: Fiscal 2006 rates are a function of a load forecast which takes into account the impact of the utilities' conservation programmes
If the actual electricity savings of a utility's conservation programmes are greater than forecast, the utility should be *allowed* to recover its lost distribution revenues plus carrying charges from its customers in a subsequent rate year. Conversely, if the actual electricity savings of a utility's conservation programme are less than forecast, the utility should be *obliged* to return its *excess* distribution revenues plus carrying charges to its customers in a subsequent period.

For example, for a residential customer class, with no demand charge, the lost/excess revenues will be a function of:

(Actual incremental kWh savings due to the utility's fiscal 2006 conservation programmes – forecast incremental kWh savings due to the utility's fiscal 2006 conservation programmes) x distribution charge per kWh.

Pre-Approval of Input Assumptions
In order to reduce regulatory risk and uncertainty, the RP-2004-0188 Conservation Working Group has recommended that electric utilities should be permitted seek OEB pre-approval for their input assumptions for calculating their LRAM claims. (See Conservation Working Group recommendation #7.) If a utility were to receive pre-approval for all of its input assumptions, the actual dollar value of its LRAM claim would be solely a function of: a) its actual number of participants; and b) its pre-approved input values. In my opinion this proposal is in the public interest.

A LRAM just removes a penalty
While a LRAM eliminates the financial penalty for promoting conservation, on the customers-side of the meter, it does not provide a utility with an incentive to *aggressively* and *cost-effectively* promote energy conservation.

Shared Savings Mechanism for Customer-Side of the Meter Conservation Programmes
Ontario's electric utilities have many competing objectives. In particular, under the OEB's ratemaking rules, the utilities can increase their profits by increasing their delivery volumes and/or by reducing their delivery costs. As a consequence, the development of leading-edge, innovative and aggressive, customer-side of the meter conservation programmes will not be a high priority for the utilities' boards of directors or senior management if the promotion of conservation is merely a cost-centre; not a profit-centre.

However, as the OEB's experience with Enbridge Gas Distribution has demonstrated, a well designed conservation incentive can lead to a dramatic improvement in utility performance. For example, from 1995 to 1998 Enbridge had no incentive to aggressively and cost-effectively promote energy conservation on the customers-side of the meter and, not surprisingly, it failed to achieve its annual conservation targets by 19% to 70%. In order to encourage improved performance, the Board established a shareholder conservation incentive commencing in 1999. After the incentive was established, Enbridge exceeded its annual conservation targets by 21% to 67% from 1999 to 2001.

Table 1: Enbridge's Energy Conservation Performance*

Year	Targeted Savings (million cubic metres)	Actual Savings (million cubic metres)	Variance
1995	12.8	3.9	-70%
1996	29.0	18.8	-35%
1997	47.3	18.6	-61%
1998	44.6	36.2	-19%
1999	31.2	52.0	67%
2000	42.0	58.9	40%
2001	67.9	82.4	21%

* OEB Docket No. RP-2003-0048, Ex. A, Tab 8, Sch. 1, p. 9; Updated: 2003-06-30.

Unlike Enbridge, Union Gas does not have a shareholder conservation incentive. As a consequence, the positive impact of a shareholder conservation incentive can also be seen by comparing Enbridge's and Union's forecast energy savings for 2004. Despite the fact that Union Gas is Ontario's largest natural gas utility, in terms of throughput volumes, its energy efficiency targets for 2004 are dramatically lower than those of Enbridge. Specifically, the forecast energy cost savings for Union's 2004 conservation programmes are 56% less than those of Enbridge ($79.4 million for Union versus $180.4 million for Enbridge).[7]

In short, a well-designed conservation shareholder incentive can simultaneously: lower customers' bills; help Ontario reduce its electricity consumption by 5% by 2007; and facilitate the province's transition "from a culture of waste to a culture of conservation".

A shareholder incentive that directly links the electric utilities' profits to the aggregate net customer bill reductions created by their conservation programmes will promote the above-noted objectives. For example, assuming an SSM incentive rate of 5%, a SSM will lead to an incremental net reduction in customers' bills if it causes the utility to increase the total net bill savings of its conservation programmes by 5.3% or more.

Public opinion polling has revealed that Ontario voters strongly support linking the electric utilities' profits to the bill reductions that their conservation programmes achieve for their customers. According to a 1,000 person poll conducted by Oraclepoll Research Limited, in the City of Toronto in December 2001, 79% of the respondents believe that the Ontario Energy Board should provide Toronto Hydro with financial incentives for promoting energy efficiency amongst its customers.[8]

According to a 1,000 person province-wide poll conducted in March and April 2004, 75% of the respondents agreed that the Ontario Energy Board should make the promotion of energy conservation a profitable course of action for Hydro One and Ontario's municipal electric utilities.[9]

At its July 2004 Council Meeting, the City of Toronto passed a resolution asking the Minister of Energy to: "instruct the Ontario Energy Board to link the profits of Ontario's electric utilities (for example Toronto Hydro) to their success at reducing their customers' bills by promoting energy conservation and efficiency".[10]

Therefore, an electric utility should be permitted to apply for a Shared Savings Mechanism (SSM) incentive which is equal to a small fraction (e.g., 5%) of the total net bill savings that are created by its fiscal 2006 customer-side of the meter conservation programmes.

Calculating the Net Bill Savings
The Total Resource Cost (TRC) Test should be used to calculate the net bill savings produced by a utility's conservation programmes.

For each electricity conservation measure, the benefit side of the TRC Test consists of the province-wide avoided (marginal) generation and transmission costs and local avoided distribution costs multiplied by the incremental reduction in electricity consumption, net of free-riders. The benefits of an electricity conservation measure are calculated for each year of its expected economic life. The stream of future benefits are discounted and summed to calculate the net present value of the benefits.

The cost side of the TRC Test is the incremental capital and operating costs of the electricity conservation measure, net of free-riders, plus the utility's programme overhead costs. The costs of an electricity conservation measure are calculated for each year of its expected economic life. The stream of future costs are discounted and summed to calculate the net present value of the costs.

The net present value of the TRC Test *net* benefits equals the net present value of the benefits minus the net present value of the costs.

When a conservation programme is jointly delivered by an electric utility and one or more partner organizations (e.g., NRCan, a natural gas utility), it will be necessary to calculate the incremental kWh savings that are due the electric utility's participation in the programme. If the programme would not have gone ahead in the utility's franchise area, without the utility's participation, the incremental savings due to the utility's participation are equal to 100% of the programmes total savings.

On the other hand, if the programme would have proceeded without the utility's participation, the incremental kWh savings will be a function of: a) the incremental number of participants, net of free riders; and/or b) the incremental savings per participant as a result of the utility's participation. For example, assume without the utility's participation the programme would have 50 participants and a saving of 100 kWh per participant. If the utility's participation simply increased the programme's number of participants to 75, the incremental savings as a result of the utility's participation would be 2500 kWh (25 participants x 100 kWh per participant). On the other hand, if the utility's participation increased the number of participants by 25 and

increased the average savings per participant by 30 kWh; the incremental savings as a result of the utility's participation would be 4750 kWh [(25 new participants x 130 kWh per participant) + (50 original participants x 30 kWh incremental saving per participant)].[1]

If an electricity conservation programme is jointly delivered by the local electric and natural gas distribution utilities (e.g., Hydro Ottawa and Enbridge Gas Distribution) the utilities should be allowed to split the incremental TRC net savings of the electricity conservation programme amongst themselves for the purposes of calculating their respective SSM awards, subject to the constraint that there is no double counting of the programme's net TRC benefits. For example, let's assume that a joint Hydro Ottawa/Enbridge electricity conservation programme has incremental TRC net benefits of $10 million. Under this scenario, $7.5 million and $2.5 million of the TRC net benefits could be allocated to Hydro Ottawa and Enbridge respectively for the calculation of their respective SSMs.

The SSM Incentive Rate
The ideal SSM incentive rate will maximize the customers' net bill savings subject to the following constraints: a) no undue increase in electricity rates; and b) no undue increase in the utilities' returns on equity.

It is my opinion that a SSM incentive rate of 5% may provide the electric utilities with a sufficient incentive to develop aggressive and cost-effective customer-side of the meter conservation programmes in fiscal 2006. I do not believe that a 5% incentive rate would lead to undue rate impacts or undue increases in the utilities' returns on equity. My reasons for my opinions are as follows.

The impact of our proposal on electricity rates and the utilities' returns on equity will be a function of the following factors.

1. The utilities' level of customer side of the meter conservation spending. If the utilities were to spend their full initial conservation budget in fiscal 2006, their level of conservation spending would be approximately $225 million. However, this will not be the case. For example, Enersource, Hydro Ottawa, Hamilton Hydro and Toronto Hydro are planning to spend 28%, 36%, 37% and 40% respectively of their conservation budgets in 2006.[11] If, on average, Ontario's electric utilities spend 40% of their conservation budgets in 2006, their total conservation spending in 2006 will be $90 million. Furthermore, the utilities' customer side of the meter spending is expected to be substantially less than their total conservation spending.

2. The ratio of the net present value of TRC net benefits produced by the utilities' customer side of the meter conservation programmes in fiscal 2006 to their fiscal 2006 conservation spending.

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[1] In this numerical example we have implicitly assumed that there are no free-riders.

For Enbridge Gas Distribution this ratio averaged 7 to 1 for its fiscal years 1999 to 2001 inclusive. However, during its first year of conservation spending (1995), Enbridge's ratio was only 2.18 to 1 despite the fact that it was able to draw on its large and sophisticated marketing department to develop its conservation programmes.[12]

Moreover, it is important to note that the ratio of the net present value of TRC net benefits to utility spending for U.S. electric utilities is often significantly less than 7 to 1.

For example, the projected ratios of the net present value of TRC net benefits to utility spending for the 2003 programmes of Connecticut's electric utilities are as follows: residential appliances: 0.68; residential retail lighting: 2.73; residential HVAC: 0.32; residential retrofit: 0.70; low income conservation and load management: 0.58; medium/large commercial and industrial building retrofits: 2.65; and small commercial and industrial building retrofits: 8.52.[13]

Efficiency Vermont's ratio of the net present value of TRC net benefits to utility spending was 1.9 to 1 for the period 2000 to 2003 inclusive.[14]

In Massachusetts the ratio of the net present value of TRC net benefits to utility spending for electric conservation programmes was 1.5 to 1 in 2002.[15]

Southern California Edison's forecast ratio of the net present value of TRC net benefits to utility spending is 1.9 to 1 for 2004.[16]

3. The total equity of Ontario's electric utilities – approximately $4.1 billion.[17]

4. The marginal income tax rate of Ontario's electric utilities - approximately 36%.[18]

5. The total cost of electricity for Ontario consumers – approximately $12 billion.

Table 2 shows the aggregate net present value of the TRC net benefits of the utilities' customer side of the meter conservation programmes, the pre and post-tax SSM awards and their impact on electricity rates and return on equity; assuming: a) the utilities' conservation spending on their customers' side of the meter is $45 million; and b) a 2 to 1 ratio of the net present value of TRC net benefits to utility spending.

Table 2

NPV of TRC Net Benefits	Pre-Tax SSM Reward	After-Tax SSM Reward	Impact on Electricity Rates	Impact on After-Tax Return on Equity
$90 million	$4.5 million	$2.88 million	4/100ths of 1%	7 basis points

Table 3 shows the aggregate net present value of the TRC net benefits of the utilities' customer side of the meter conservation programmes, the pre and post-tax SSM awards and their impact on electricity rates and return on equity; assuming: a) the utilities'

conservation spending on their customers' side of the meter is $90 million; and b) a 2 to 1 ratio of the net present value of TRC net benefits to utility spending.

Table 3

NPV of TRC Net Benefits	Pre-Tax SSM Reward	After-Tax SSM Reward	Impact on Electricity Rates	Impact on After-Tax Return on Equity
$180 million	$9 million	$5.76 million	8/100ths of 1%	14 basis points

Table 4 shows the aggregate net present value of the TRC net benefits of the utilities' customer side of the meter conservation programmes, the pre and post-tax SSM awards and their impact on electricity rates and return on equity; assuming: a) the utilities' conservation spending on their customers' side of the meter is $45 million; and b) a 7 to 1 ratio of the net present value of TRC net benefits to utility spending.

Table 4

NPV of TRC Net Benefits	Pre-Tax SSM Reward	After-Tax SSM Reward	Impact on Electricity Rates	Impact on After-Tax Return on Equity
$315 million	$15.75 million	$10.08 million	13/100ths of 1%	25 basis points

Table 5 shows the aggregate net present value of the TRC net benefits of the utilities' customer side of the meter conservation programmes, the pre and post-tax SSM awards and their impact on electricity rates and return on equity; assuming: a) the utilities' conservation spending on their customers' side of the meter is $90 million; and b) a 7 to 1 ratio of the net present value of TRC net benefits to utility spending.

Table 5

NPV of TRC Net Benefits	Pre-Tax SSM Reward	After-Tax SSM Reward	Impact on Electricity Rates	Impact on After- Tax Return on Equity
$630 million	$31.5 million	$20.16 million	3/10ths of 1%	49 basis points

It is my opinion that Tables 2 to 5 are representative of the maximum likely impacts of a 2006 SSM on the aggregate rates and equity returns of Ontario's electric utilities in a subsequent year. In all cases, I believe that the rate and equity returns impacts are reasonable given the level of ratepayer net bill reductions that are created.

SSM should not apply to OPA conservation programmes
It is expected that the Conservation Bureau of the Ontario Power Authority will contract with Ontario's electric utilities for the delivery of some of its conservation programmes. Furthermore, it is expected that these contracts will include a profit component. Therefore, conservation programmes delivered by Ontario's electric utilities, pursuant to a contract with the proposed Ontario Power Authority, should not be eligible for an additional SSM incentive.

Energy Probe' Alternative Incentive Structure
Instead of making the SSM of small fraction of the *total* net TRC savings produced by a utility's conservation programmes, Energy Probe has proposed that the utilities should only be eligible for a SSM reward for programmes whose ratio of net TRC savings per dollar of utility expenditures exceeds approximately 5.6 to 1. Moreover, Energy Probe is proposing a SSM incentive rate of 5 to 10% of the net TRC savings that exceed the 5.6 to 1 ratio. (See RP-2004-0188 Conservation Working Group recommendation # 5B.)

For example, assuming a utility conservation budget of $100 million, an actual net present value of TRC net benefits to spending ratio of 7 to 1 and an SSM incentive rate of 10%; the pre-tax SSM reward would be $14 million. [$100 million x (7 – 5.60) x 10%)]

The Energy Probe model implicitly assumes that it would be relatively easy for Ontario's electric utilities to implement conservation programmes, in fiscal 2006, which would have TRC net benefits to utility spending ratios of 5.6 to 1. However, Energy Probe has not produced convincing empirical evidence to support its implicit assumption.

If Ontario's electric utilities believe that it would be very difficult, or impossible, for them to implement conservation programmes with TRC net benefits to utility spending ratios that are significantly greater 5.6 to 1 in fiscal 2006, Energy Probe's SSM incentive structure will not motivate them to aggressively and cost-effectively promote conservation.

However, if during fiscal years 2005 and 2006 the utilities' conservation programmes have ratios of TRC net benefits to utility spending that are significantly in excess of 5.6 to 1, Energy Probe's proposal will deserve serious consideration by the Board.

Recommendations

1. To ensure that the electric utilities will not be penalized for implementing effective, customer-side of the meter conservation programmmes in fiscal 2006, they should be allowed to recover, in a subsequent rate year, the lost distribution revenues plus carrying costs that they experience between May 1, 2006 and April 30, 2007 inclusive as a result of their energy conservation programmes.

   Scenario #1: Fiscal 2006 rates are not a function of a load forecast which takes into account the impact of the utilities' conservation programmes.

   A utility's lost distribution revenues, for each rate class, should be calculated by multiplying the *incremental* reduction in its kWh and kW volumes, as a result of its conservation programmes, by its distribution charges per kWh and kW.

   Scenario #2: Fiscal 2006 rates are a function of a load forecast which takes into account the impact of the utilities' conservation programmes

   If the actual electricity savings of a utility's conservation programmes are greater than forecast, the utility should be *allowed* to recover its lost distribution revenues plus carrying charges from its customers in a subsequent rate year. Conversely, if the actual electricity savings of a utility's conservation programme are less than forecast, the utility should be *obliged* to return its *excess* distribution revenues plus carrying charges to its customers in a subsequent period.

   For example, for a residential customer class, with no demand charge, the lost/excess revenues will be a function of:

   (Actual incremental kWh savings due to the utility's fiscal 2006 conservation programmes – forecast incremental kWh savings due to the utility's fiscal 2006 conservation programmes) x distribution charge per kWh.

2. Each utility should be permitted to apply for a Shared Savings Mechanism incentive equal to 5% of the total net bill savings, as measured by the Total Resource Cost Test, that are created by its fiscal 2006 customer side of the meter conservation programmes.

3. The dollar values of the utilities' LRAM and SSM claims should be calculated according to the methodologies outlined in this evidence.

Endnotes

1   Ontario Ministry of Energy, *News Backgrounder*, "Ontario Energy Board Amendment Act Hightlights Of The Proposed Changes", (November 25, 2003).

2   Legislative Assembly of Ontario, *Official Report of Debates (Hansard)*, Tuesday 9 December 2003, Standing Committee on Justice and Social Policy, page J-6.

3   The average ratio of net Total Resource Cost (TRC) Test benefits to utility conservation spending for Enbridge Gas Distribution's conservation programmes for fiscal years 1999 to 2001 inclusive was 7 to 1. Ontario Energy Board Docket No. RP-2003-0203, Ex. L, Tab 11, Sch. 1, p.2: Chris Neme, Vermont Energy Investment Corporation, *Enbridge's Role in Ontario's Conservation Culture*, May 3, 2004, p. 2.

4   Notes For Remarks By The Honourable Dwight Duncan Minister Of Energy, "Choosing What Works For A Change", The Empire Club, Toronto, April 15, 2004.

5   Remarks by Dalton McGuinty, Premier of Ontario, "Building a Culture of Conservation" Statement to the Legislative Assembly. URL: http://www.premier.gov.on.ca/english/news/Energy041904_speech.asp. Retrieved April 26, 2004.

6 In this numerical example we have implicitly assumed that there are no free-riders.

7   Ontario Energy Board Docket No. RP-2003-0063, Ex. M11.2, Tab 1; Ex. N11.3; and Transcript Volume 11, paragraphs 577, 598, 599, 662 and 663.

8 Oraclepoll Research Limited, *Environmental Issues in the City of Toronto,* Prepared for Ontario Clean Air Alliance (December 2001).

9 Oraclepoll Research Limited, *Air Quality Issues in Ontario: Survey Report*, Prepared for Ontario Clean Air Alliance (April 2004).

10 Letter to Premier Dalton McGuinty from Ulli Watkiss, City Clerk, City of Toronto, August 4, 2004.

11   Ontario Energy Board Docket No. RP-2004-0203, Hydro Ottawa, *Conservation and Demand Management Plan*, (November 4, 2004), p. 24; Hamilton Hydro, *Conservation and Demand Management Plan*, (November 4, 2004), p. 17; Enersource Hydro Mississauga, *Conservation and Demand Management Plan*, (November 4, 2004), p. 19; and Toronto Hydro, *Conservation and Demand Management Plan*, (November 4, 2004), p. 24.

12   Ontario Energy Board Docket No. RP-2003-0203, Ex. L, Tab 11, Sch. 1, p.2: Chris Neme, Vermont Energy Investment Corporation, *Enbridge's Role in Ontario's Conservation Culture*, May 3, 2004, p. 2.

13   *Review Of Connecticut's Conservation and Load Management Administrator Performance, Plans and Incentives*, DPUC Docket No. 03-01-01, Report Prepared for the Connecticut Office of Consumer Counsel, Prepared by Optimal Energy, Inc., Vermont Energy Investment Corporation and PAH Associates, October 31, 2003. pp. 27 to 35.

14   *Efficiency Vermont: 2003 Annual Report*.

15   Commonwealth of Massachusetts, Office of Consumer Affairs and Business Regulation, *2002 Energy Efficiency Activities: A Report by the Division of Energy Resources: An Annual Report to the Great and General Court on the Status of Energy Efficiency Activities in Massachusetts*, Summer 2004, pp. 16 & 19.

16   Southern California Edison, *2004 Energy Efficiency Annual Report: Summary Report 2003 Results – 2004 Plans and Technical Appendix 2003 Results*, May 2004, pp. 1.7 & 1.10.

17   Email from Marc Abramovitz, Ontario Energy Board to Jack Gibbons, Pollution Probe, September 20, 2004.

18   Email from Duncan Skinner, Ontario Energy Board to Jack Gibbons, Pollution Probe, September 17, 2004.