

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998* S.O. 1998, C.15, Schedule B (the “Act”);

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 subsection 19(4) and 78 of the *Ontario Energy Board Act, 1998*

MOTION RECORD FILED ON BEHALF OF THE LOW-INCOME ENERGY NETWORK

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| Tab 1 | Submissions of the Low-Income Energy Network (LIEN) |
| Tab 2 | Affidavit of David Heeney dated 2 December 2005 |
| Tab 3 | Minister’s letter to LDCs dated 31 May 2004 |
| Tab 4 | Conservation and Demand-Side Management Initiatives (Residents of Low-Income and Social Housing) (Ministerial directive to Ontario Power Authority) |

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SUBMISSIONS OF THE LOW INCOME ENERGY NETWORK

Introduction and Background

The Low- Income Energy Network (“LIEN”) is a party in this proceeding. LIEN is an organization of more than 40 member groups from across Ontario including, energy, public health, legal tenant/housing, education and social and community organizations. As a network representing the intersection of interests related to low-income customers, and energy and the environment. LIEN’s focus is on:

- (a) Reducing the electricity bills of all low-income consumers;
- (b) Ensuring low-income customers have access to conservation programs and technologies; and
- (c) Realizing environmental, energy and economic benefits that are associated with the more efficient use of energy.

The Ontario Energy Board (the “OEB” or the “Board”) has commenced this proceeding, on its own motion, to make certain determinations respecting LDC CDM activities as described in the EDR Handbook and TRC Guide. In particular, the Board asked parties to this proceeding to prepare evidence and submissions on the following matters:

- (a) 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;
- (b) Whether the Board should require LDCs to demonstrate free ridership levels for all CDM programs on a program-by-program basis; and

- (c) Whether the Board should order that an LDC should only be entitled to claim incremental benefits associated with its participation in a CDM program with a non-rate third party.

IndEco Strategic Consulting Inc. was retained by LIEN to prepare a report in connection with the specific matters the Board requested to be dealt with in this proceeding (the “IndEco Report”).¹

LIEN has adopted all of the recommendations in the IndEco Report and submits that:

- (a) Where an LDC proposes no or inadequate CDM programs directed at low-income customers, and does not provide an explanation, satisfactory to the Board, as to why there is no need for such CDM programs, the Board should order the utility to spend money on low-income CDM programs in an amount that is different from the amount proposed by the LDC in the test year.
- (b) The Board should not require LDCs to demonstrate free-ridership levels for all CDM programs on a program-by-program basis.
- (c) The Board should not order that an LDC should only be entitled to claim incremental benefits associated with its participation in a CDM program with a non-rate regulated third party.

The specific issues and submissions are dealt with below.

SCOPE OF CDM SPENDING

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.

Government policy clearly states that Ontario must develop a “culture of conservation”. It is also clear that each LDC has a significant role, along with the Conservation Bureau of the Ontario Power Authority, (“OPA”) in developing and delivering effective, efficient and meaningful CDM programs in its territory.² While the Conservation Bureau should be encouraged to develop programs that may be common to most LDCs or are province-wide in scope, each LDC also has a significant role in not only delivering programs developed by the Conservation Bureau, but also

¹ Attached to affidavit of David Heeney, dated 2,December 2005, which was submitted by LIEN as evidence in this proceeding (Attached at Tab 2)

² For example, demand management of electricity is a specific enunciated objective for the Board is set out in Section 1 of the Act. Subsection 71(2) of the Act provides that a transmitter or distributor may provide services that would assist the Government of Ontario in achieving its goals in electricity conservation, including services related to the promotion of electricity conservation and the efficient use of electricity. The hybrid nature of the regulatory scheme is also reflected in subsection 29.1(1) of the *Electricity Act*, which provides that a transmitter, distributor or the OPA may provide services that would assist the Government of Ontario in achieving its goals in electricity conservation, including services related to the promotion of electricity conservation and the efficient use of electricity.

in developing and implementing programs that have a more local application. LDCs have an affirmative obligation to provide CDM programs and, acting in the public interest, the Board should ensure that utilities fulfill this obligation. The LDC should not be able to abrogate this responsibility by merely becoming a delivery agent for programs developed by the Conservation Bureau.³

In order to be effective, the nature and scope of CDM programs offered by an LDC must be specifically tailored to the needs of the customers in that particular LDC's territory. Factors would include matters such as the size of the LDC, the customer mix (industrial, general service, residential, low-income), the nature of the CDM needs for the LDC's customers (new housing development vs. retrofitting older buildings) etc. As part of this obligation, it is important that the CDM portfolio should be balanced among rate classes, including low-income customers.

Each LDC must be given flexibility and latitude when developing its portfolio to provide programs that meet the specific needs of the customers in its territory. While the Board may give general guidelines and direction as to what a well-balanced CDM portfolio might include, the LDC is in the best position to understand the specific needs of its customers and the Board should not micromanage the utility and dictate what specific programs the LDC should offer.

Government policy has stated that the needs of low-income customers must be addressed by both the Conservation Bureau and each LDC.⁴ Low-income customers, particularly in privately-owned residences and rental buildings, have specific needs. Typically a larger portion of their after-tax earnings is devoted to energy expenditures; however, they may not have sufficient cash flow to meaningfully participate in many CDM programs that are typically offered to residential customers.⁵ It is LIEN's position that in order to be well-balanced, all CDM portfolios should include some programs directed to low-income customers.

³ See position advocated by Newmarket Hydro Limited in affidavit of Paul D. Ferguson, dated 2, December 2005.

⁴ Letter sent by the Ministry of Energy to LDCs on 31 May 2004. (Attached at Tab 3). and Direction of the Minister of Energy to Ontario Power Authority to develop programs targeted at these customers (Attached at Tab 4).

⁵ For example, a low-income customer may not have sufficient resources to participate in a program that gives a rebate for purchasing an energy efficient appliance if the customer cannot afford to purchase a new appliance in the first place.

LIEN does acknowledge, however, that there may be limited circumstances where a utility is not able to offer meaningful CDM programs directed specifically at low-income customers,⁶ and the utility should be given the opportunity to explain why this is the case.

However, where an LDC proposes no or inadequate CDM programs directed at low-income customers, and does not provide an explanation, satisfactory to the Board, as to why there is no need for such CDM programs, the Board should order the utility to spend money on low-income CDM programs in an amount that is different from the amount proposed by the LDC in the test year.

Free Ridership

Whether the Board should require LDCs to demonstrate free ridership levels for all CDM on a program-by-program basis.

LIEN agrees with the position taken by most of the parties in this proceeding that “free ridership” levels should, in theory, be taken into account in evaluating CDM programs.⁷ However, LIEN has a number of practical concerns with respect to the proposal that LDCs should be required to demonstrate free ridership levels for all CDM programs on a program-by-program basis.⁸

Free rider studies, if done properly, can be difficult and expensive to undertake. Requiring every LDC to demonstrate free ridership levels on a program-by-program basis may impose an unfair administrative and financial burden, particularly on smaller LDCs. Utilities should be encouraged to use limited CDM funds on programs that deliver actual results, rather than on justifying free ridership levels for each program.⁹

Usually free ridership studies are conducted after the fact. Surveying customers’ motives is difficult at the best of times. It would be helpful to all parties, including the utilities, if the

⁶ For example, where there are not low-income customers within the LDC’s service area, or where their needs are adequately addressed by the utility’s general residential CDM programs, or by social agencies.

⁷ In fact, LIEN is not aware of any party arguing against the theory of free riders or the desirability to address free ridership rates in CDM plans or the evaluation of these plans.

⁸ The TRC Guide currently provides “rule of thumb” free rider levels for technologies. In theory, free rider levels should be based on the program and not on the technology. Free rider levels for technologies may be a practical substitute for program specific free rider levels.

⁹ This is particularly true for programs targeted at low-income customers, where the free rider rate is expected to be zero.

parameters for each CDM program, including free ridership rates, were determined and agreed to prior to the implementation of the program.

Theoretically free ridership values will vary not only from program to program, but also within a particular program over time. It is unrealistic to expect each LDCs to conduct free ridership studies for each of their CDM programs on an annual basis.

Requiring LDCs to provide free ridership studies would be a disincentive to utilities to innovate and explore new ways of realizing electricity reductions. Programs should not be limited to those for which free rider studies already exist.

LIEN submits that the Board should take a pragmatic approach to the free ridership issue.

LIEN supports the use of the “rule of thumb” approach as currently set out in the TRC Guide. . Rule of thumb levels should be updated as better data generally become available, or if the particular LDC can establish that other values are justified.

The Conservation Bureau should be encouraged to conduct studies to determine free ridership values for smaller CDM programs that are of general application across the province and to improve the “rule of thumb” free ridership values in the TRC Guide. Likewise free rider studies may be required from larger LDCs for CDM programs that exceed certain thresholds, such as anticipated TRC benefits in excess of \$1.5 million.

The TRC Guide should be updated to provide that the “rule of thumb” free ridership estimate for programs specifically targeted at low-income consumers ought to be zero.¹⁰

As with any prospective ratemaking, all assumptions, including free ridership values, should be determined at the time of approval of the CDM programs.¹¹ Refinements or changes to free rider values arising from post-implementation program and portfolio evaluation should be adopted on a going-forward basis, and not retroactively.

¹⁰ See page 9, IndEco Report (Tab 2)

¹¹ We note that there appears to be widespread support among parties to the use of prospective setting of free ridership rates. See paragraph 27 of affidavit of Michael Brophy, dated 2, December 2005; paragraph 33b of affidavit of Jack Gibbons dated 14, October 2005; paragraph 27 of affidavit of Todd Williams dated 2, December 2005, as well as the letter from David Poch to Denis O’Leary dated 14 December 2005, and filed by O’Leary.

Allocation of Benefits

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

The provincial government has specifically stated its policy encouraging LDCs to develop partnerships with others, including non-rate regulated third parties.¹² In order to encourage these partnerships, LDCs must have an incentive to do so. If an LDC can only claim incremental benefits, there may be no incentive to enter into partnerships.

It is difficult to study and prove the specific value of benefits that result from the participation in a collaborative effort. In many cases, due to partners having different objectives, different accounting methods, or for other reasons, it may be difficult to apportion each partner's contribution to the program, and the cost of trying to do so may outweigh the benefit, particularly for smaller programs. This is true whether the CDM program is conducted jointly with any third party, whether that party is rate-regulated or not.

LIEN submits that prior to the approval and implementation of any joint CDM program, the parties should be required to establish a budget, setting out the relative monetary and non-monetary contribution of each of the parties. The default position should be that incremental benefits associated with an LDC's participation in the program should be allocated on the relative contribution of each partner.

In order to encourage these partnerships, each LDC should be entitled to claim credit for TRC benefits not only based on its contribution to the partnership, but also an additional incentive. Twenty (20%) percent has been suggested as a reasonable level.¹³ Where the partnership only involves rate-regulated partners, the total benefits allocated among the partners should not exceed 100% of the estimated benefits.

As is the case with any assumptions, an individual LDC should have the right to establish to the Board's satisfaction why there are special circumstances resulting in the default allocation of benefits not being just and reasonable in its particular circumstances.

¹² See letter from Minister to LDCs dated 31 May 2004.

¹³ See IndEco Report, page 12.

RESPECTFULLY SUBMITTED BY the Low-Income Energy Network this 20th day of
December 2005

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IN THE MATTER OF the *Ontario Energy Board Act, 1998* 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 subsection 19(4) and 78 of the *Ontario Energy Board Act, 1998*

AFFIDAVIT OF DAVID HEENEY

I, **DAVID WESLEY HEENEY** of the City of Toronto, Province of Ontario, **MAKE OATH AND SAY:**

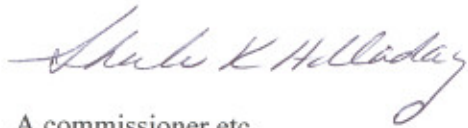
1. I am the President of IndEco Strategic Consulting Inc. (“IndEco”). IndEco is a management consulting firm specializing in energy and the environment, and with special expertise in energy conservation and demand management (“CDM”). Attached as Exhibit “A” to my affidavit is a copy of my *curriculum vitae*.
2. I have personal knowledge of the matters herein discussed, except where I have specifically indicated that I have obtained information from other sources. I declare that I verily believe all such information to be true.
3. By way of Notice of Proceeding and Hearing, dated November 11, 2005, (the “Notice”) the Ontario Energy Board (the “OEB” or the “Board”) commenced a proceeding on its own motion to make certain determinations respecting LDC CDM activities as described in the EDR Handbook and TRC Guide.
4. In particular, the Board asked parties to this proceeding to prepare evidence and submissions on the following matters:

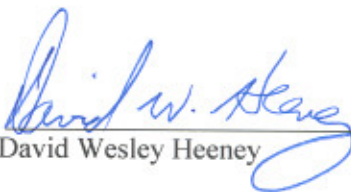
- 4.1 Whether the Board should order an LDC to spend money on CDM programs in an amount that is different from the amount proposed by an LDC in a test year and if so, under what circumstances;
 - 4.2 Whether the Board should require LDCs to demonstrate free-ridership levels for all CDM programs on a program-by-program basis; and
 - 4.3 Whether the Board should order that an LDC should only be entitled to claim incremental benefits associated with its participation in a CDM program with a non-rate regulated third party.
5. The Notice stated that parties leading evidence in this proceeding may do so by filing affidavit evidence with the Board and the registered intervenors, and all other LDCs by December 2, 2005.
6. The Low Income Energy Network (“LIEN”) is a party in this proceeding. LIEN is an organization of more than 40 member groups from across Ontario including, energy, public health, legal tenant/housing, education and social and community organizations. As a network representing the intersection of interests related to low-income customers, and energy and the environment. LIEN’s focus is on:
- 6.1 reducing the electricity bills of all low-income consumers (at least to a level lower than what the bills would have been absent the CDM program, given the environment of rising electricity prices);
 - 6.2 ensuring low-income customers have access to conservation programs and technologies; and
 - 6.3 realizing environmental, energy and economic benefits that are associated with the more efficient use of energy.
7. IndEco has been retained by LIEN to prepare a report in connection with the specific matters the Board requested to be dealt with in this proceeding. Attached as Exhibit “B” to my affidavit is a copy of the report prepared by IndEco for LIEN (the “IndEco Report”).
8. The IndEco Report concludes that:
- 8.1 Where an LDC proposes no or inadequate CDM programs directed at low-income customers, and does not provide an explanation, satisfactory to the Board, as to why there is no need for such CDM programs, the Board should

order the utility to spend money on low-income CDM programs in an amount that is different from the amount proposed by the LDC in the test year.

- 8.2 The Board should not require LDCs to demonstrate free-ridership levels for all CDM programs on a program-by-program basis.
 - 8.3 The Board should not order that an LDC should only be entitled to claim incremental benefits associated with its participation in a CDM program with a non-rate regulated third party.
- 9 The specific background and rationale for these conclusions is more specifically set out in the IndEco Report.

SWORN before me at the City of)
 Toronto, in the Province of Ontario this)
 2nd day of December 2005)


 A commissioner etc.)
)
)
)
)
)


 David Wesley Heenev

This is Exhibit A referred to in the affidavit of David Wesley Heeney sworn before me this 2nd day of December, 2005.


A Commissioner etc.

DAVID HEENEY

President

David Heeney has done management consulting in energy and environment strategy and policy, management systems and technology assessment since 1978 both in Canada and abroad. One of his distinctive capabilities is to quickly see through a morass and identify the central kernel.

David's consulting projects have covered a wide range of energy and environment issues, including demand side management (DSM), climate change, emissions reductions, and environmental management and information systems. He has done extensive work for both public, private and third sector clients in energy efficiency programs, life-cycle assessment, performance indicators (in particular sustainability indicators), full-cost accounting, and the development and use of economic instruments to achieve goals such as the virtual elimination of toxics. He has developed innovative strategic planning, computer modeling and communications and workflow management tools to assist decision-makers to deal with the energy, environment and business challenges they confront.

EXPERTISE

- DSM and renewable energy policy analysis, regulatory frameworks, planning, program development, and implementation
- Strategic planning
- Municipal energy and environmental management
- Information management systems

EMPLOYMENT HISTORY

- President, IndEco Strategic Consulting Inc. (1994 – present)
- Partner, Hickling (1992 – 1994)
- President, VHB-Hickling (1991-1992)
- Partner, VHB Research & Consulting Inc. (1998-1991)
- President, Heeney Associates (1987)
- Senior Analyst, Ontario Waste Management Corporation (1982-1986)
- Consultant, Middleton Associations (1980-1982)
- Project Analyst, Grande Prairie School District Energy Conservation Program (1979-1980)

PROFESSIONAL QUALIFICATIONS

Master of Environmental Design (Environmental Science), University of Calgary (1980)

Bachelor of Science, University Scholar, McGill University (1977)

APPEARANCES

1992	Joint Board, North Simcoe Waste Management landfill EA, on behalf of the North Simcoe Waste Management Association regarding evaluation methods in environmental assessment
2003	Ontario Energy Board, on behalf of Enbridge Gas Distribution Inc. regarding their DSM framework and incentive mechanisms
2005	Ontario Energy Board, on behalf of the Canadian Energy Efficiency Alliance on DSM/CDM and the 2006 Electricity Distributors Rate Case

SELECTED PROJECTS

- Ontario Power Authority. Assessment of residential fuel-choice options. Project manager.
- Social Housing Services Corporation. Development of strategies for CDM program options with various partners including CMHC, OPA, NRCan and other natural gas and electric utilities. Project manager.
- Ontario Power Authority. Senior technical advisor on the development of low-income program options that led to the Minister of Energy directive.
- Burlington Hydro. Senior technical advisor on the design, implementation, monitoring and evaluation of Burlington Hydro's CDM programs for 2005.
- Development of 2006 CDM plans (post third tranche) for Milton Hydro and Burlington Hydro. Project manager.
- Development of 2005 CDM Plans (third tranche) for Milton Hydro, Brantford Power, Brant County Power, Burlington Hydro and Kitchener-Wilmot Hydro. Project manager.
- Milton Hydro. Technical advisor on the implementation of Milton Hydro's Energy Drill pilot demand response program.
- Enbridge Gas Distribution. Senior policy advisor in the design of the DSM framework, and surveys of DSM practices in other jurisdictions.

- Milton Hydro. Senior technical advisor in the preparation of Milton Hydro's 2003 DSM Plan (with Fraser & Company).
- CIDA. Development of climate change mitigation and adaptation training program in Cuba in collaboration with University of Toronto. IndEco project manager.
- Toronto Hydro. Senior technical advisor in the investigation of options for Toronto Hydro to reduce customers' bills including an illustrative approach for 2003 to DSM (with Fraser & Company).
- Toronto Hydro and Milton Hydro. Senior technical advisor in the identification and evaluation of opportunities for DSM for local distribution companies (with Fraser & Company).
- Energy Efficiency Office, City of Toronto. Identification and evaluation of opportunities for strengthening partnerships with Toronto Hydro through joint work in DSM. Project manager.
- Energy Efficiency Office, City of Toronto. Development of a Sustainable Energy Business Plan for the Energy Efficiency Office for 2002. Project manager.
- Canadian Gas Association and City of Toronto. Senior advisor in the development of a concept and successful proposal to the Climate Change Action Fund for a series of energy efficiency workshops across Canada.
- Brewers of Ontario. Senior policy advisor on the development of an environmental strategy including opportunities for reducing energy use and emissions in new facilities and vehicles.
- Ontario Hydro. Comparison of gas-fired and electric commercial chillers. Project manager.
- Ontario Ministries of Energy, Environment and Transportation. Reducing energy use and emissions in Ontario's transportation sector. Project manager.
- Ontario Ministry of Energy. Compressed natural gas market potential in Southwestern Ontario. Project manager.
- Canada Mortgage and Housing. Implications of energy retrofit on municipal by-laws. Project manager.
- Ontario Hydro. Advisor on the impact of alternative energy areas on the bulk electricity system.
- Ontario Ministry of Housing. Senior advisor on the energy impact of urban development standards.



CDM, free riders and attribution of benefits

Prepared for the Low-Income Energy Network
involvement in OEB proceeding EB-2005-0523

This is Exhibit A referred to in the affidavit of David Wesley Heeney
sworn before me this 2nd day of December, 2005.



A Commissioner etc.

**DSM, free riders and attribution of benefits:
Prepared for the Low-Income Energy Network
involvement in OEB proceeding EB-2005-0523**



INDECO 

This document was prepared for the Low-Income Energy Network by David Heeney of IndEco Strategic Consulting Inc.

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IndEco report A5320

2 December 2005

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Introduction

Background

This report was prepared by David Heeney of IndEco Strategic Consulting Inc. for the Low-Income Energy Network (LIEN) to support their involvement in a proceeding of the Ontario Energy Board (EB-2005-0523) considering issues related to Conservation and Demand Management (CDM) by Ontario electricity local distribution companies (LDCs). The issues relate to the scope of CDM programs the Board may direct LDCs to undertake, the determination of ‘free riders’ in program evaluations, and the attribution of benefits where programs are offered jointly by rate regulated LDCs and other partners.

The information in this report draws on published literature, the experience of Mr Heeney (Mr. Heeney’s resume is appended), and consultation with LIEN members.

About the Low-Income Energy Network (LIEN)

LIEN is an organization of more than 40 member groups from across Ontario including energy, public health, legal, tenant/housing, education and social and community organizations. As a network representing the intersection of interests related to low-income customers, and energy and the environment, LIEN’s focus is:

- reducing the electricity bills of all low-income consumers (at least to a level lower than what the bills would have been absent the CDM program, given the environment of rising electricity prices)
- ensuring low-income customers have access to conservation programs and technologies
- realizing environmental, energy and economic benefits that are associated with the more efficient use of energy.

LIEN’s interests in the OEB proceeding

CDM programs offered by LDCs and targeted at low-income consumers play an important role in addressing these interests and in realizing the ‘Conservation Culture’ that has been identified as a priority of the provincial government.

The OEB has posed questions in its Notice of Proceeding (EB-2005-0523) related to the EDR Handbook and TRC Guide that will have an impact on low-income consumers in Ontario. Before responding to each question in turn, it is important to provide some background information on the energy burden facing low-income consumers in Ontario. Understanding this energy burden has a direct bearing on the responses to the OEB questions.

The structure of this document

The balance of this document consists of four parts: one reviewing the low-income energy burden and explaining why appropriately designed CDM activities are important for low-income consumers, and three sections addressing the three questions posed by the Ontario Energy Board:

- Should the Board 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?
- Should the Board require LDCs to demonstrate free ridership levels for all CDM programs on a program by program basis?
- Should the Board order that an LDC should only be entitled to claim incremental benefits associated with its participation in a CDM program with a non-rate regulated third party?

Low-income energy burden

Consumers with low incomes can be categorized into the following main groups:

- **social housing** – most electricity bills are paid for by social housing providers
- **private tenant housing where electricity is included in rent** – low-income consumer does not pay electricity bills directly
- **private tenant housing where electricity is paid directly by renter** – low-income consumer pays electricity bills directly
- **private homeowner** – low-income consumer pays electricity bills directly

For the purposes of LIEN's work, LIEN has defined the low-income sector to include the above except for social housing. This is consistent with the recent Minister of Energy directive on low-income and social housing to the Ontario Power Authority.

According to the 2001 census by Statistics Canada, 14.4% of Ontario residents (or 1,611,505 persons) were living at or below the pre-tax, post transfer low-income cutoffs – a widely accepted Canadian measure of poverty.¹ The majority of low-income people in Ontario, approximately, two thirds, live in tenant households.² Low-income households face a higher energy burden (percent of household income devoted to energy costs) than median and higher income households. Statistics Canada data show that in 2003, the lowest income quintile of Ontario households spent nearly six times more on water, fuel and electricity than the highest income quintile. On electricity alone, Ontario households in the lowest

¹ Statistics Canada, 2001 Census of Population. Incidence of low income among the population living in private households, provinces – Ontario. Low-Income Cutoffs (LICOs) published by Statistics Canada, using pre-tax, post-transfer household income are currently the best approach for defining low income. Post-tax LICOs adjust for federal and provincial income taxes, but do not reflect taxes such as EI and CPP premiums, GST, provincial sales taxes and property taxes.

² Advocacy Centre for Tenants Ontario. November 5, 2003. Rental Housing in Ontario – quick facts. The majority of tenants do not pay for electricity directly.

income quintile spent 6.13 % of the pre-tax income in 2003, nearly five times more than households in the top quintile that spent 1.03%.³

The lowest household income quintile in Ontario has a far greater proportion of households that:

- use electricity as the principal heating fuel (30% compared to 9.2 % for the highest quintile)
- use electricity as the principal heating fuel for hot water (42.3% compared to 19.7% for the highest quintile)
- have principal heating equipment more than 10 years old (73.7% compared to 49.3% for the highest quintile).

As electricity prices continue to rise, the energy burden for low-income households will increase, leaving virtually no disposable income to allocate to energy efficiency measures. For many low-waged workers and people on social assistance and other income security programs, rising prices will mean choosing between heating and eating and paying the rent. The inability to pay utilities is one of the leading economic causes of homelessness.⁴ LIEN has estimated that over 50,000 households a year in Ontario have their energy disconnected.

Emergency bill assistance and rate assistance are important, but will not solve the energy burden problem over the long term. Energy efficiency and conservation programs that stabilize and even lower electricity bills of low-income families are needed.

³ The electricity bills for an average residential customer consuming 1000 kWh per month range across the province from \$87 to \$124 per month. For a single mother with two children on social assistance, this represents 16% to 22% of her maximum shelter allowance. For a single person working 35 hours a week at minimum wage (\$7.15/hr), this represents 8% to 11% of this worker's total monthly pre-tax income of \$1084.42.

⁴ Low-Income Energy Network. Press release: *Lights out for low income hydro consumers?* March 29, 2004.

Scope of LDC programs

The OEB, in its Notice of Proceeding (EB-2005-0523), posed the following question related to the EDR Handbook and TRC Guide to which parties were invited to prepare evidence and make submissions:

Should the Board 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?

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 where the LDC does not have programs specifically designed to address the needs of low-income customers, or these programs are, in the opinion of the Board, inadequate and the LDC has not provided a sufficient rationale to the Board for why these programs are unnecessary or infeasible in their unique circumstance.

As discussed above, low-income customers, particularly those in privately-owned homes or privately-owned tenant buildings typically have a larger energy burden than other residential customers and are least able to pay for energy efficiency upgrades. Yet these energy efficiency upgrades address important social and policy concerns, including the health, safety and security of these customers and their families, and the provincial objectives to bring about a 'Conservation Culture', to improve the security, and availability of electricity. Other benefits noted in other jurisdictions have included a reduction in LDCs' bad debts.⁵

The Board has already commented in various decisions and its guidelines on the need to address how CDM is distributed across rate classes, and the need to avoid cross-subsidization. A logical extension of this concern is to address the specific needs of low-income consumers. The Board, and LDCs, should recognize that general residential CDM programs are often not useful to low-income customers, for example if they require substantial funding from participants.

⁵ See e.g. Low Income Utility Advocacy Project. 2005. Comments of the Low Income Utility Advocacy Project to the Illinois Commerce Commission Regarding the Governor's Sustainable Energy Plan. (31 March) <http://www.icc.illinois.gov/ec/docs/050322ecCommentsLow.pdf>

The Board should order LDCs to spend money on low-income CDM programs in certain circumstances. Each LDC must have a low-income program offering to help these customers, unless the utility can establish to the Board's satisfaction why it does not need to make such a program available. Where an LDC proposes no or inadequate CDM programs for low-income customers, and does not have an explanation for why that is satisfactory to the Board, the Board should order the utility to spend money on CDM programs in an amount that is different from the amount proposed by the LDC in the test year.

Demonstrating free rider levels

Should the Board require LDCs to demonstrate free ridership levels for all CDM programs on a program by program basis?

The Board should not require LDCs to demonstrate free ridership levels for all CDM programs on a program by program basis.

The theory

“Free riders” in a CDM program are participants who would have taken the energy reducing action even if the program did not exist.⁶ Since they would have taken the action in the absence of the program, it is argued that the reductions they realize cannot legitimately be attributed to the program. Consequently, in program evaluation, the results associated with the program should be determined net of free riders. Removal of free riders from program results has been suggested for several reasons, most noticeably:

- to encourage LDCs to design programs that result in reductions in electricity use that would not have occurred without those programs.
- to ensure that LDCs are rewarded for the differences they cause, not solely for effort or spending.
- to protect ratepayers from ‘excessive’ (i.e. unearned) rewards being paid out through the shareholder incentive mechanism (SSM). In particular, it is desirable to reduce ‘gaming’ whereby a utility would deliberately attempt to earn excessive rewards.

To realize fully these objectives requires that regularly updated studies of free rider levels of every program be undertaken, since the free rider rate is a function of program design, the maturity of the equipment or service, the maturity of the program and the customer sector; characteristics that

⁶ In fact, the possible adjustment to gross results should, in theory, account for not just free riders, but also partial free riders (e.g. participants who would have taken the action, but at a later time) and free drivers (non-participants who took the action as a result of the program existing).

will vary from program to program and within a program over time. Theoretically, there ought to be a free rider analysis of every program, every year.

The practice

In practice, these objectives compete with other equally important objectives, including:

- to encourage LDCs to design and implement CDM programs. Regulatory burden and regulatory risk are disincentives to LDCs to design and implement CDM programs, and a requirement for free rider studies of each program imposes additional burden and risk for the utilities.
- to stimulate LDCs to innovate and explore new ways of realizing electricity reductions. Programs should not be limited to those for which free rider studies already exist.
- to ensure that as much as possible, funds available for CDM are used to realize savings. Undertaking free rider studies is difficult, and can be very expensive, if done properly. Administrative, regulatory and evaluation obligations all compete with program design and delivery for the funds available.

Regulatory burden and regulatory risk

In principle, free rider levels should be program specific and not technology based. The TRC Guide provides 'rule of thumb' free rider levels for technologies, as a practical substitute for program specific free rider values. Providing 'rule of thumb' estimates – sometimes referred to as 'deemed estimates' – is also used in other jurisdictions as the fallback position for program planning.⁷ This approach is helpful to utilities because it is simple for them to use, and should remain in the TRC Guide for 2005-2006. These rule of thumb levels should be updated as better data become available.

The Board should add additional 'rule of thumb' values specifically for low-income CDM programs. Low-income customers cannot afford to pay the costs of any electricity upgrade; the typical uncommitted disposable

⁷ See, e.g. TecMarket Works et al. 2004. *The California Evaluation Framework* Prepared for the California Public Utilities commission and the Project Advisory Group (Revision of September 7, 2004), p.135. <http://tecmarket.net/documents/California%20Evaluation%20Framework%20Sept%202004.pdf>

income to buffer interruptions or face unexpected expenses of low-income households in Ontario is around \$200 per year⁸, forcing these consumers to make decisions on a regular basis between heating and eating. Efficiency upgrades are beyond these basic needs considerations. Therefore the rule of thumb estimate for programs specifically targeted at low-income consumers ought to be zero.

The regulatory burden is reduced if the Board encourages LDCs to address free rider issues at the planning stage, and to use the 'rules of thumb', or alternative values if LDCs feel different values are justified. Reducing the regulatory burden will help LDCs to focus efforts on program delivery and achieving savings.

Further, the approved free rider rate should be accepted as the basis of the post-implementation program and portfolio evaluation. Refinements or changes to free rider values arising from any evaluations should be adopted on a going-forward basis, not retroactively. This reduces the regulatory risk that LDCs face. There is no evidence of LDCs 'gaming' the system to date, and the presumption should be that LDCs are interested in delivering cost-efficient and effective CDM to their customers. For all but the largest utilities, the incentives for gaming are small.⁹

Allocation of limited resources

LIEN wishes to encourage utilities to spend as many of their CDM dollars allocated to low-income programs as possible on achieving savings for these customers, and therefore, supports reasonable rules of thumb, albeit not theoretically perfect, that provide an appropriate balance between the level of regulatory scrutiny for a particular program and dollars spent on achieving savings.

The cost and efficiency implications of requiring LDCs to demonstrate free rider levels for each of their CDM programs can outweigh the benefits that these studies will accrue, especially for low-income

⁸ Email from Rene Morissette, Assistant Director – Research, Business and Labour Market Analysis Division, Statistics Canada, to Mary Todorow, ACTO, December 17, 2004. \$200/year refers to dollars available in 1999. It is from the study done by Statistics Canada, in *Perspectives on Labour and Income, Families on the edge*, July 2002. Catalogue no. 75-001-XIE. With higher energy prices, the dollars available in 2005 are likely to be lower. StatsCan plans to update the study in 2006-07.

⁹ Only eleven LDCs have applied for post-third tranche spending in 2006.

(http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_EDR_appinfo.htm as viewed 2005-11-30). The largest request is from Enersource for \$1,525,000, and the average of the eleven is \$318,000. Assuming these dollars can be transformed into net benefits in the order of 3 times the size, and the 5% SSM rate on TRC, the average potential SSM reward is less than \$48,000. Further, it is not clear that all of these utilities will even be applying for an SSM. At least one has indicated it will not be. This suggests little room for 'gaming', even if the LDCs were so inclined.

programs. Having to do a free rider study for each program to demonstrate the free rider level each time a CDM plan is approved by the Board is too costly, especially during these early years, and when LDCs are just getting going with CDM, and the programs are relatively small.

Free rider studies tend to be carried out after the CDM program has been delivered, introducing difficulties for study design into the analysis. It is difficult to get program participants to participate in these studies resulting in small sample sizes, and the act of participating in a particular CDM program biases the responses of the participants when responding to questions that try to extract free rider information. Trying to minimize these problems adds more complexity and therefore more cost and time to doing these studies. As well, intervenors will likely disagree on the quality of these studies leading to more cost and effort in determining appropriate levels.

A pragmatic approach

The OEB needs to take a pragmatic approach to the free rider issue, as it has begun to do in setting out default free rider rates in the TRC Guide. To extend this, the Board could:

- place emphasis on study at the front end of the program, during program design, for the LDC to obtain improved market intelligence on what customers are doing absent the programs and what they are likely to do if a particular one is offered.
- require free rider studies on individual LDC programs that exceed a certain threshold, which could be specified in either anticipated TRC benefits, or in program spending. For example, a free rider study might be required to support any program with anticipated net TRC benefits in excess of 1.5 million dollars.
- request a third party, such as the Conservation Bureau of the OPA, to undertake research that would encourage the refinement of the default free rider estimates. Such research could include:
 - conduct free rider studies for a sample of smaller and common programs, and use these results to improve the 'rule of thumb' numbers in the TRC Guide, to be available for use by all LDCs going forward. Going forward LDCs should be allowed and encouraged to use the existing free rider levels until they are replaced with better information.

- Develop simple survey methodologies that could be used to determine free rider rates. Such methodologies have been developed in other jurisdictions and can greatly reduce the cost associated with undertaking free rider studies. Until such a methodology is approved, 'rule of thumb' numbers should continue to be used.

Allocation of benefits

The OEB, in its Notice of Proceeding (EB-2005-0523), posed the following question related to the EDR Handbook and TRC Guide to which parties were invited to prepare evidence and make submissions:

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

The Board should not order that an LDC should only be entitled to claim incremental benefits associated with its participation in a CDM program with a non-rate regulated third party.

The provincial government has a policy of encouraging partnerships and synergies between LDCs and other non-regulated third parties. If the utility can only claim the incremental benefits, there is no incentive to partner with these non-rate regulated third parties. It is difficult to study and prove any benefits that result from the group synergies and the cost of trying to try to do so may outweigh the benefit of conducting those studies, especially for smaller programs. Therefore, in order to encourage these partnerships, the utilities should have an incentive to do so.

The default option for the attribution of savings for partnerships with third-parties should be based on the relative spending of the partners. In order to encourage such partnerships, as requested by the Minister in his instructions to LDCs on developing CDM programs, LDCs should be entitled to claim credit for TRC benefits based on their share of spending plus some increment, such as 20%. Thus if the LDC is an equal partner, then it would be entitled to claim $(50\% \times 1.2 =) 60\%$ of net TRC benefits created. As is the principle in the TRC Guide now, if an LDC wishes to establish why it deserves more benefits than the default option for a particular case, it is free to do so.

In some cases, due to the partner having different objectives, different accounting methods, or for other reasons, the partner's contribution may be unavailable, or not readily available. In these cases the LDC should develop and explain the rationale used to allocate benefits, preferably at the plan stage.

Where the program involves a partnership with *rate-regulated* third parties, the total benefits allocated among the partners shall not exceed 100% of the estimated benefits.

In future, the Board should require LDCs to assign benefits in these types of partnership programs up front when designing the CDM program. This will give LDCs certainty going forward, and enable them to put greater attention on achieving savings.



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May 31, 2004

Mr. Wilfred Thorburn
Chief Executive Officer and Secretary-Treasurer
Atikokan Hydro Inc.
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Fax: (807) 597-6988

Dear Mr. Thorburn:

In my letter dated December 19, 2003, I conveyed the government's intention to permit local distribution companies (LDCs) to apply to the Ontario Energy Board (OEB) for the next instalment of their allowable return on equity beginning March 1, 2005. I also indicated that the OEB's approval in regard to the final instalment should be conditional on a financial commitment to reinvest an amount equal to one year's incremental returns in conservation and demand management initiatives.

A number of LDCs have indicated a desire and ability to begin making investments in such initiatives immediately. Recognizing that demand-side management is a critical means of ensuring a sustainable and reliable supply of electricity in Ontario, I am committed to facilitating these near-term investments. I am therefore writing to you pursuant to section 79.6 of the *Ontario Energy Board Act, 1998* to allow you to proceed to the OEB with an application to establish a deferral account – in advance of your ability to recover such costs through the next installment of the allowable return on equity next March – within which to track expenditures on conservation and demand management initiatives.

With respect to short-term initiatives, I expect you to pursue a broad range of programs that support the more efficient use of electricity in Ontario, including those that were discontinued on the opening of the electricity market, to reduce customers' overall energy demand and/or demand for purchased energy.

In order to expedite short-term actions, I fully expect you to require some assurance with respect to conservation proposals that would be considered for the purposes of cost recovery. In this regard, without limiting the range of innovative proposals that may be brought forward, I believe that reasonable new expenditures on the planning, delivery and evaluation of the following specific measures should be supported by the Board:

.../cont'd

- energy efficiency;
- behavioural and operational changes, including the application of benchmarking or “smart” control systems;
- load management measures which facilitate interruptible and dispatchable loads, dual fuel applications, thermal storage, and demand response;
- measures to encourage fuel switching which reduces the total system energy for a given end-use;
- programs and initiatives targeted to low income and other hard to reach consumers; and
- distributed energy options behind a customer’s meter such as tri-generation, co-generation, ground source heat pumps, solar, wind, and biomass systems.

Obviously, the prudence of actual expenditures in these areas will ultimately be determined by the OEB.

I believe that a number of opportunities exist for LDCs to lever incremental investments through partnerships with governments, such as Natural Resources Canada and the Canadian Federation of Municipalities, and with local community-based conservation agencies and authorities. I have therefore asked the Board to give priority to proposals that leverage, and thereby maximize, the financial investments of LDCs when using their next instalment of allowable return on equity.

Over the long-term, the specific nature of LDC initiatives, and related recovery issues, will be at the OEB’s discretion. To ensure that the sustainable regulatory framework developed by the OEB is consistent with the government’s overall policy objectives in this area, I will be providing the OEB with the government’s policy objectives and direction with respect to “smart” metering very shortly. In addition, I would expect the framework to remove barriers to demand-side management, provide incentives to manage distribution systems more efficiently and ensure consumers benefit from reduced energy use. Conservation assets should be included in the rate base.

I appreciate your assistance in the promotion of a conservation culture in Ontario.

Sincerely,

Dwight Duncan
Minister

c: Howard Wetston, Chair, Ontario Energy Board

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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