



LOW-INCOME ENERGY NETWORK

Consultation on Energy Issues Relating to Low-Income Consumers (EB-2008-0150)

September 22 – 25, 2008

What is the Low-Income Energy Network?

- ◆ LIEN is a network of anti-poverty, affordable housing and environmental groups.
- ◆ LIEN has over 75 member organizations, as well as individual and corporate supporters
- ◆ We seek to raise awareness of, and propose solutions to, energy poverty through:
 - outreach to community groups;
 - outreach to the public, e.g. through the media;
 - participating in OEB hearings and legislative processes;
 - working with policy-makers and local utilities to develop workable solutions to energy poverty.

LIEN Mission Statement

- ◆ The Low-Income Energy Network:
 - aims to ensure universal access to adequate energy as a basic necessity, while minimizing the impacts on health and on the local and global environment of meeting the essential energy and conservation needs of all Ontarians.
 - promotes programs and policies which tackle the problems of energy poverty and homelessness, reduce Ontario's contribution to smog and climate change, and promote a healthy economy through renewable and energy efficient technologies.



Presentation overview

- 1. Should the Board implement policies, programs or other measures designed to assist low income energy consumers?**
- 2. Existing energy assistance programs**
- 3. Low-income energy assistance programs in other jurisdictions**
- 4. Rate measures to assist low income energy consumers.**
- 5. Customer Service Issues (Payment Period, Disconnection, Security Deposits and Specific Service Charges) and Arrears Management Programs**
- 6. CDM/DSM Programs for Low-Income Consumers**
- 7. Time of Use Pricing; Sub-metering issues; energy retailers**
- 8. Program Funding Mechanisms**



Topic 1: Should the Board implement policies, programs or other measures designed to assist low income energy consumers?

- ◆ Energy poverty is a serious, systemic problem that can't be addressed with band-aid solutions
- ◆ The Board is responsible for regulating natural gas and electricity utilities
- ◆ The Board has a mandate to, and is responsible for setting just and reasonable rates
- ◆ Most low-income consumers buy “system gas” or “RPP electricity”. For them, the OEB regulates 100% of the prices they pay and the bills they receive, and is in the best position to implement the needed assistance

Topic 1: Should the Board implement policies, programs or other measures designed to assist low income energy consumers?

- ◆ The Board has the relevant expertise to implement the policies, programs and other measures.
- ◆ Assistance directly from the government is more uncertain and less flexible. Certainty can be provided by the OEB and is needed for planning programs and flexibility is needed to respond to vagaries of weather and economics.
- ◆ Given that natural gas and electricity services are universal services, all customers should contribute to the assistance required by low-income consumers. There are many precedents for this.
- ◆ Low-income consumers need affordable rates. Win-win alternatives exist between customers and the utilities.



Broader context for conservation; Opportunities to end energy poverty

Environmental, social and economic...

- ◆ Ontario's goal to reduce peak electricity demand by 6,300 MW by 2025 (OPA's Integrated Power System Plan or IPSP – includes \$10 Billion for conservation)
- ◆ Ontario's climate change plan (coal plant phase-out by 2014)
- ◆ Ontario's long-term affordable housing strategy
- ◆ Ontario's poverty reduction strategy, with firm targets to measure progress

Ontario's energy crisis



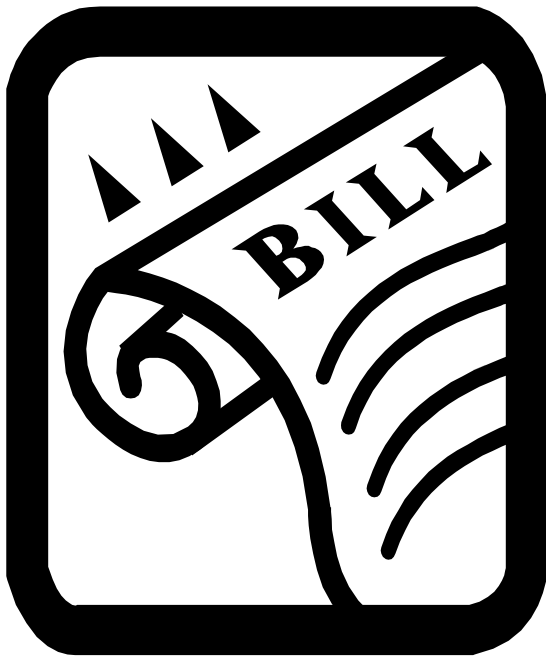
- ◆ Need to refurbish, rebuild, replace or conserve 25,000 MW of generating capacity by 2020 (more than 80% of Ontario's current electricity generating capacity).
- ◆ OPA's IPSP - \$60 billion infrastructure expansion and renewal over a 20-year period.
 - \$10 billion for conservation,
 - \$46 billion for new generation
 - \$4 billion on transmission

Rising energy prices

- ◆ Real cost-to-customer increases of OPA's 20-year IPSP expected to be 15% to 20%
- ◆ Natural gas prices and oil prices also on the rise



Rising energy prices and low-income consumers

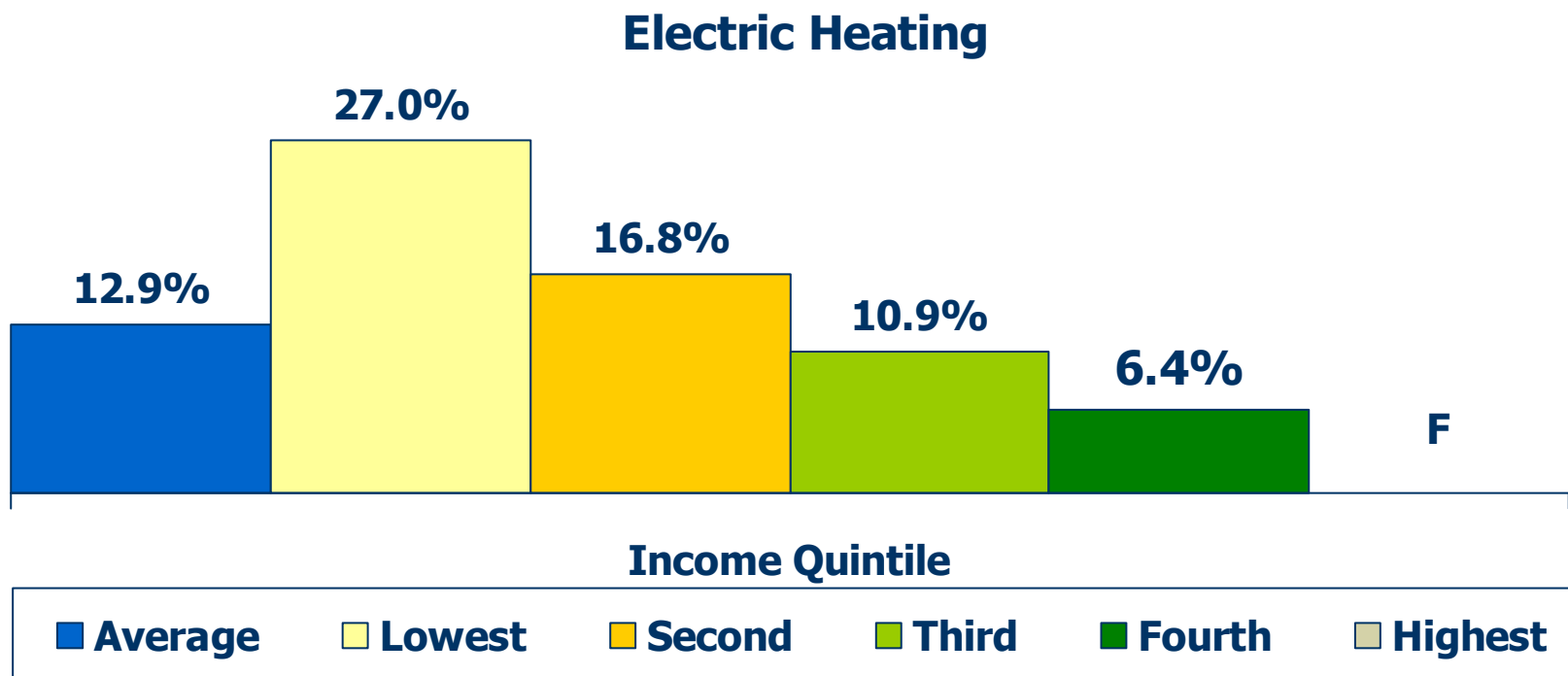


- ◆ Low-income households are particularly vulnerable to increases in shelter and utility costs - put housing in jeopardy.
- ◆ High energy costs are the second most significant reason for economic evictions in Ontario, right after unaffordable rents.
- ◆ Heating, eating or paying the rent will be choice faced by many.
- ◆ Reductions in energy use may be at the expense of health, socially acceptable standards of living.

Vulnerability to rising electricity prices

- ◆ The lowest household income quintile in Ontario has a far greater proportion of households that:
 - have electric heating as their principal heating equipment (27.0% compared to 12.9% for the average income household)
 - use electricity as principal heating fuel (30.8% compared to 16.7% for the average income household)
 - use electricity as principal heating fuel for hot water (39.3% compared to 26.4% for the average income household and 15.1% for the highest quintile).

Principal Heating Equipment



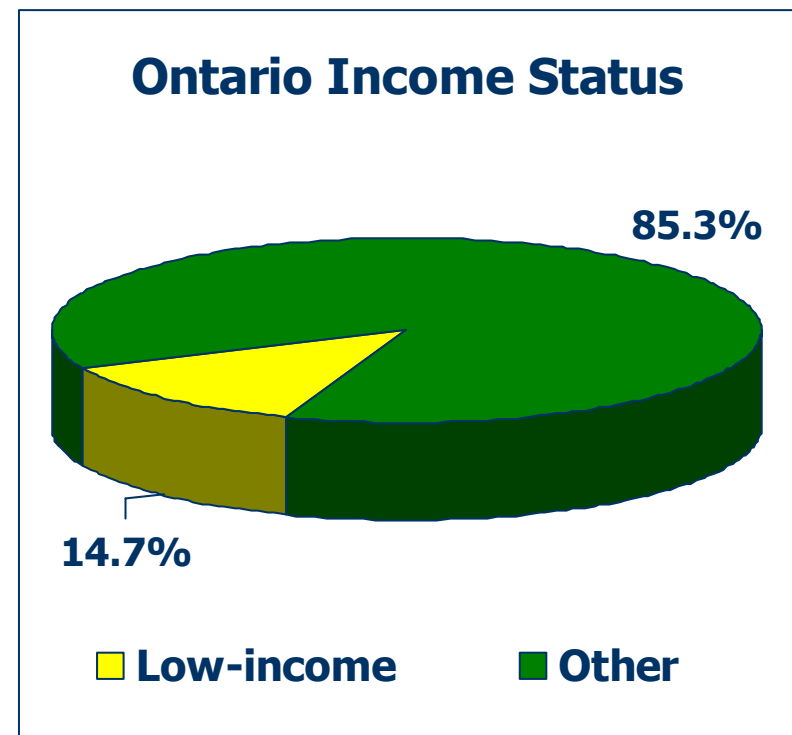
Source: Survey of Household Spending 2006, Statistics Canada

Energy use and the environment

- ◆ Electricity generating stations are big polluters.
 - 20% of greenhouse gases
 - 15% to 23% of smog-causing pollutants
 - Radioactive wastes we don't know how to deal with
 - 38% of electricity used by residential sector and apartments
- ◆ Home heating (electricity, natural gas and oil) responsible for 15% of greenhouse gas emissions in Ontario.
- ◆ Higher energy costs may spur conservation, BUT higher prices will increase the energy burden on low-income people who face barriers to accessing energy conservation/efficiency measures

Poverty

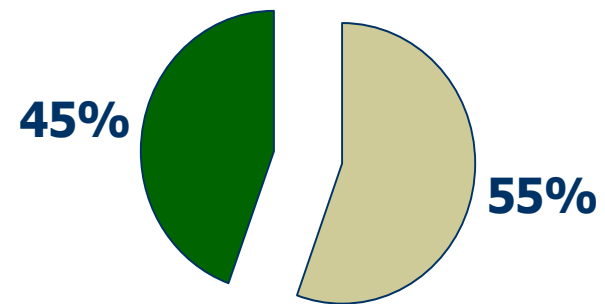
- ◆ 14.7% of Ontario's population (1,749,965 persons) are living at or below the "poverty line".
 - The majority of these persons live in tenant households, and in the private rental market



Source: Statistics Canada, 2006 Census of Population

Housing affordability and tenants

- ◆ 45% of Ontario's tenant households pay 30% or more of their household income on shelter costs (including utilities)
- ◆ 20% pay 50% and over of their household income on shelter costs - and are at risk of homelessness
- ◆ Impact of rising energy costs....



Low-income energy burden



- ◆ Low-income energy consumers face a disproportionate energy burden
- ◆ Energy burden refers to the amount of household income spent on energy
 - some experts say 6% is an affordable burden
 - U.K. fuel-poor household defined as spending more than 10%

Understanding Home Energy Burdens

Home energy burden =
Home energy bill / Household income

- ◆ Total shelter burdens affordable at 30% of income.
- ◆ Utility costs should be no more than 20% of shelter costs.
- ◆ Utility costs affordable at 6% of income

(20% x 30% = 6%).

Low-income energy burden

November 1, 2007 RPP - electricity bills for an average residential customer ranged from \$92 to \$140 per month.

- For a single mother with two children on social assistance, this represented 16% to 24% of her maximum shelter allowance of \$595.
- For a single person working 35 hours a week at minimum wage (\$8.00) this represented 8% to 12% of this worker's total monthly pre-tax income of \$1213.33.
- ◆ The typical low-income family in Ontario has only a \$200 "cushion" to buffer income interruptions or deal with unexpected expenditures.



Where do low-income consumers live?

759,590 LICO households (2001 Census)

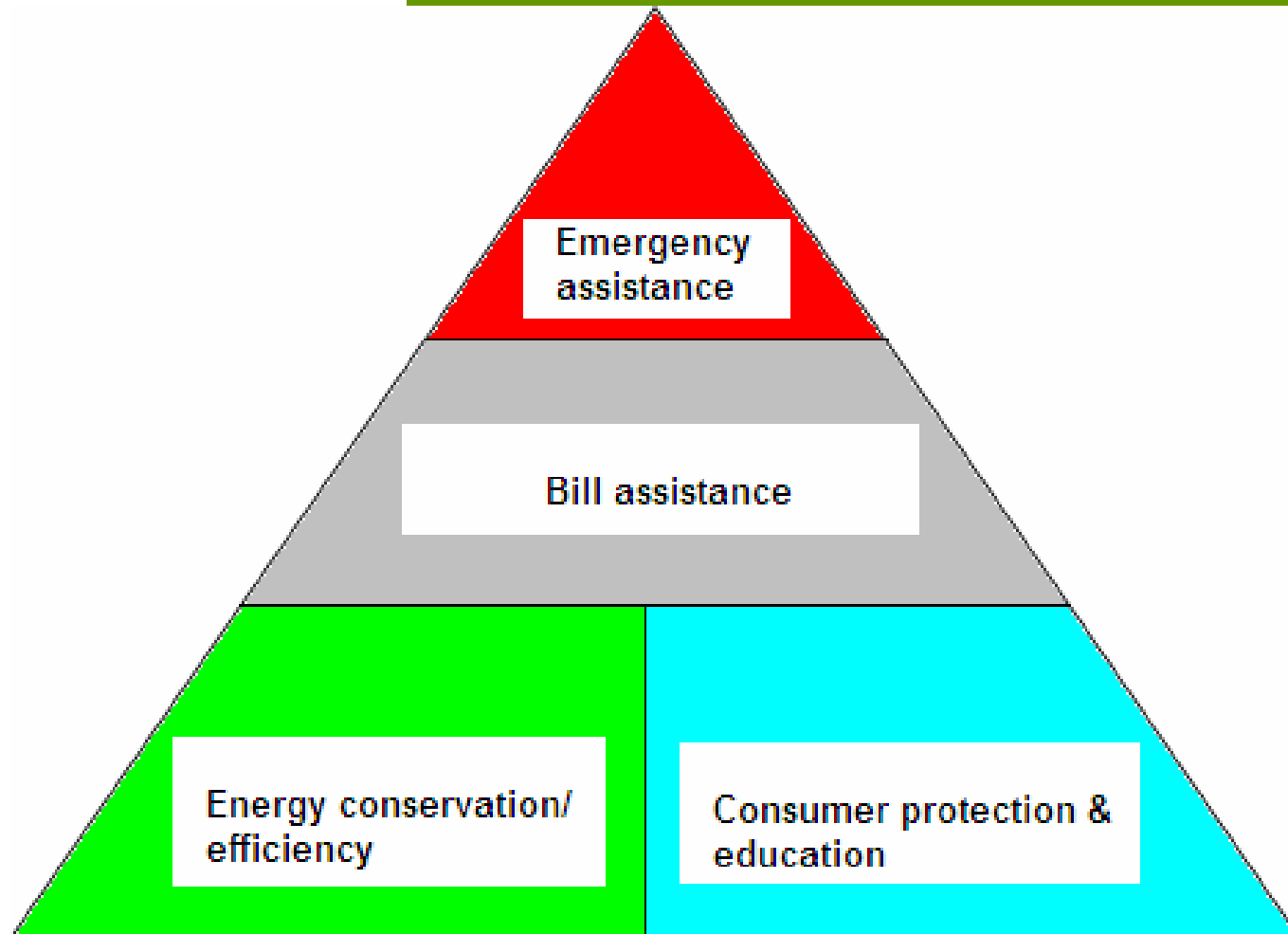
- ◆ 490,485 are tenant households (65%)
 - ◆ Live in social housing or private rental sector – most in multi-residential buildings
- ◆ 269,095 are homeowners (35%)
 - ◆ 39% are senior-led

SIMPLE SOLUTION

1. Affordable energy
2. Energy conservation



LIEN's approach to low-income energy conservation & assistance

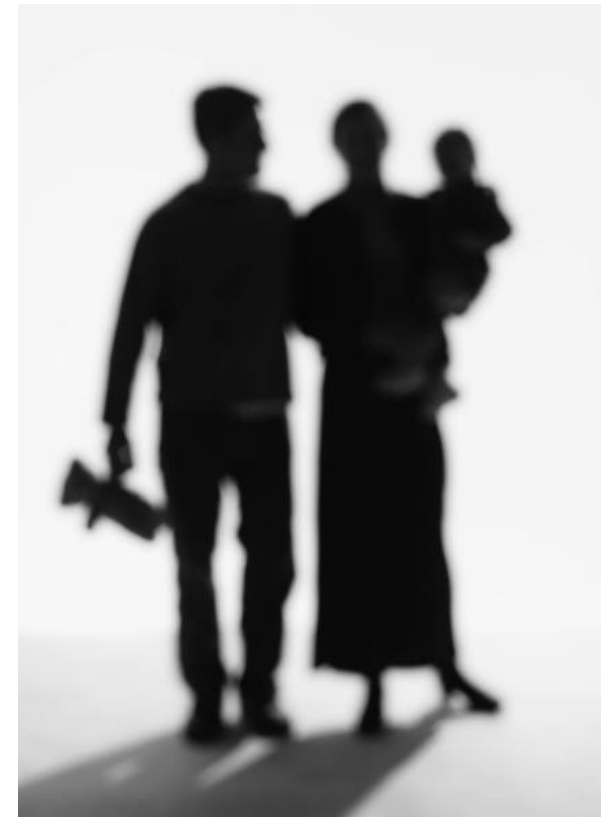


What is needed

- ◆ A permanent low-income energy rate assistance program
- ◆ LIEN's proposal for an *Ontario Home Energy Affordability Program* has five major components: rate affordability, arrears management, crisis intervention, conservation and demand management, and consumer protections. It advocates that Ontario's low-income consumers should not be paying more than 6% of their total household income on energy.

Benefits of low-income energy efficiency program

- Lower energy bills for those least able to afford higher energy prices, as energy use drops by between 15% to 55%, depending on home and extent of measures
- Reduce poverty
- Reduce risk of homelessness
- Improve comfort/quality of life
- Reduce pollution, avoid building new expensive electricity generating plants



Benefits of low-income energy efficiency program

- Reduce demand for emergency assistance (public & charitable funds)
- Reduce costs to utilities associated with late payment or non-payment of bills (e.g. collection, disconnection, reconnection)
- Reduce costs to utilities associated with emergency calls
- Reduce need for public expenditures such as health, fire, building inspections, homeless shelters, and housing programs



Rising energy prices and low-income consumers



- ◆ Heating, eating or paying the rent will be a choice faced by many.



Ability to pay; just and reasonable rates

- Under the OEBA, the Board must approve or fix "just and reasonable rates"
- The Divisional Court has decided that the Board has jurisdiction to take ability to pay into account in setting rates
- The Board cannot deny this jurisdiction and refer the matter to be dealt with by Government
- The Board does not have an unfettered discretion - it must still produce just and reasonable rates

Ability to pay; just and reasonable rates

The Board must be guided by:

- the public interest
- the protection of the interests of consumers with respect to prices and the reliability and quality of service

Unaffordable rates face low-income consumers with:

- a choice between energy use against other essentials for normal living - a choice between "heating and eating"
- disconnection of service

If rates are unaffordable, the goals of the public interest and protection of consumers are not served.

Topic 2: Existing energy assistance programs

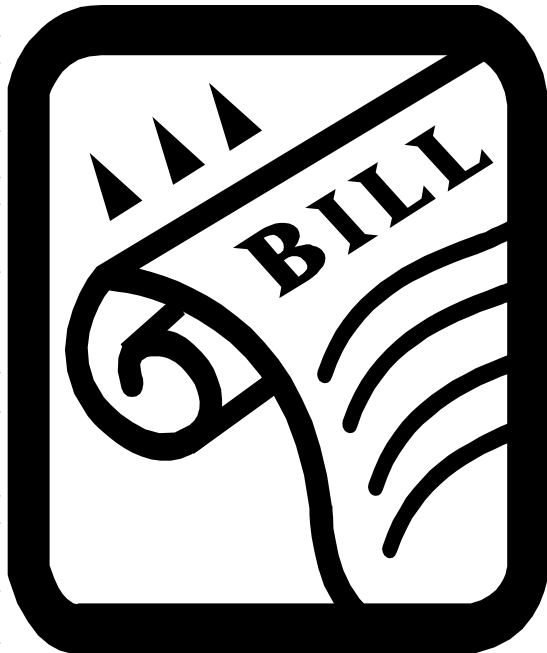
GAPS

- ◆ Patchwork of programs
- ◆ Differing eligibility criteria, application processes, and assistance levels
- ◆ Not available in all communities
- ◆ Don't provide enough money to solve the problem
- ◆ May be a grant or loan
- ◆ One-time funding only
- ◆ Funds tend to run out before the heating season is over
- ◆ Lack of awareness of existence of programs; lack of information
- ◆ Social stigma

Therefore, ill-suited to address permanent and widespread conditions of rising energy prices and income shortfalls

Topic 2: Existing energy assistance programs *continued...*

Rate assistance/emergency energy assistance



Emergency Energy Fund

- ◆ Provincial government announced “one-time” \$2 million Emergency Energy Fund on March 29, 2004; renewed the fund in 2005 Ontario Budget, and annualized it; EEF doubled to \$4.2 million in April 2006 (one-time)
 - *fund assists low-income households to pay energy arrears, security deposits and reconnection fees*

Topic 2: Existing energy assistance programs *continued...*

Rate assistance/emergency energy assistance

- ◆ **Shelter allowance:** Social assistance recipients who pay for heating costs directly can receive assistance for fuel costs as part of shelter allowance, up to a set maximum based on family size
- ◆ **Community Start-up and Maintenance Benefit (CSUMB)** pays for utility arrears, reconnections; maximum benefit can be accessed only once in 24-month period



Helping low-income consumers

Rate assistance/emergency energy assistance

- ◆ **Discretionary benefits** are available to assist OW/ODSP recipients with cost of utility arrears, deposits and reconnection fees
- ◆ **Share the Warmth, Winter Warmth** (Toronto Hydro & Enbridge Gas) and other charitable groups provide financial assistance to pay utility bills

Snapshot - low-income conservation programs

Enbridge Gas Distribution Inc.	\$ 4,558,250
Union Gas	\$ 4,303,000
LDCs' low-income CDM	\$ 4,293,120
LDCs' social housing CDM	\$ 4,554,216
OPA's Social Housing Program - Phase One	\$ 9,250,000
OPA's Energy Efficiency Assistance for Houses pilot	\$ 2,900,000
OPA's Canada-Ontario AHP Energy Efficiency Program	\$ 3,700,000
Total	\$ 33,558,586
OPA's Multifamily Buildings Program (6 units +)	RFP issued
OPA's Energy Efficiency Assistance for Houses program – expansion province-wide (5 units and under)	RFP issued

Utilities with Low Income and Social Housing Programs Implemented in 2005 (as reported by LDCs)

Low Income Measures

1. Aurora Hydro Connections Limited
2. Bluewater Power Distribution Corporation
3. Brantford Power Inc.
4. Centre Wellington Hydro Ltd.
5. Collus Power Corp.
6. EnWin Powerlines Ltd.
7. Guelph Hydro Electric Systems Inc.
8. Haldimand County Hydro Inc.
9. Hydro One Networks Inc.
10. Kitchener-Wilmot Hydro Inc.
11. Niagara Falls Hydro Inc.
12. Parry Sound Power Corporation
13. Peninsula West Utilities Limited
14. Port Colborne Hydro Inc.
15. St. Catharines Hydro Utility Services Inc.
16. Tillsonburg Hydro Inc.
17. Waterloo North Hydro Inc.
18. Wellington Electric Distribution Company Inc.
19. Whitby Hydro Electric Corporation

Social Housing Measures

1. Barrie Hydro Distribution Inc.
2. Enersource Hydro Mississauga Inc
3. Erie Thames Powerlines Corporation
4. Fort Frances Power Corporation
5. Hamilton Hydro Inc.
6. Hydro Ottawa Limited
7. London Hydro Inc.
8. Newmarket Hydro Limited
9. Oshawa PUC Networks Inc.
10. Powerstream Inc.
11. Toronto Hydro-Electric System Limited
12. Hydro One Networks Inc.
13. Kitchener-Wilmot Hydro Inc.

Helping low-income consumers

Energy conservation programs

- ◆ OEB encouraged LDCs to undertake low-income CDM, not mandatory
 - LIEN produced template for program for low-income homeowners and tenants who pay for utilities (electricity, gas) directly
 - Brantford Power piloted “Conserving Homes” program based on LIEN template



Helping low-income consumers

Energy conservation programs

- ◆ October 6, 2005 Minister's directive gives OPA/Conservation Bureau responsibility for low-income and social housing CDM - target of 100 MW reduction in electricity consumption and demand, or amount used by 33,000 homes
- ◆ OPA responsible for next phase of CDM programs through LDCs - \$400 million over three years, beginning October 1, 2007

Helping low-income consumers

Energy conservation programs

- ◆ Social Housing Services Corporation (SHSC)
 - very motivated to reduce energy costs/consumption
 - Energy Management Program pilot and financing of retrofits
 - results from first phase audit of 5,000 units - \$17.5 million needed for retrofits
- ◆ Discretionary benefits available for OW/ODSP recipients (homeowners or renters) to pay for pre-approved low-cost energy conservation measures
 - payment issued only once to benefit unit, may not exceed \$50
 - for caulking, weatherstripping, insulating pipes, low-flow showerheads, CFLs, etc.

Helping low-income consumers

Energy conservation programs

- ◆ Federal government's 5-year, \$500 million EnerGuide for Low-Income Households (EGLIH) program to assist 130,000 low-income households
 - ◆ some provinces (Saskatchewan, Newfoundland & Labrador) topped up EGLIH funding, piggy-backing additional energy conservation measures to achieve further energy reductions
- ◆ EGLIH cancelled by federal Conservative government in Spring 2006, along with EnerGuide program

Helping low-income consumers

Consumer protection

- ◆ Municipalities can pass Vital Services by-laws under Part VII of the *Tenant Protection Act*, but only a handful have
- ◆ these by-laws permit municipalities to step in to restore utility service in cases where tenants pay for the utility in their rent and the landlord has defaulted on payments
- ◆ a private member's bill has been introduced that provides for the provincial government to step in when there is no municipal vital services by-law in place

Topic 3: Low-income energy assistance programs in other jurisdictions

Low-income assistance can take many forms:

- ◆ Objectives of the program
 - ◆ Usage reduction
 - ◆ Rate Affordability
- ◆ Structure of the program
 - ◆ Rate affordability:
 - ◆ Percentage of income program (PIP)
 - ◆ Percentage of bill program (POB)
 - ◆ Discount (tiered, across-the-board)
 - ◆ Usage reduction:
 - ◆ Whole house
 - ◆ Base-load
 - ◆ Heating
 - ◆ Refrigerator replacement



Objectives of Low-Income Program

- ◆ Public health and safety
- ◆ Provide essential goods
- ◆ Efficient utility operations
- ◆ Provide least-cost service
- ◆ Prevent home energy insecurity
- ◆ Compensate for reverse subsidies

Forms of energy assistance programs in other jurisdictions: Ratepayer-funded programs

- ◆ **Fixed credit program:** New Jersey
 - Uniform statewide program
 - Gas and electric
 - Percentage of income based
 - Credits, not payments, “fixed”
 - Mandated by statute
- ◆ **Percentage of income program:** Ohio
 - Uniform statewide program
 - Made mandatory by Commission order.
 - Payments “fixed” as no greater than percentage of income.
 - Adopted under Commission inherent authority without statute.

Forms of energy assistance programs in other jurisdictions: Ratepayer-funded programs

- ◆ **Tiered discount program:** Indiana
 - Discounts vary based on income/resulting bill burden.
 - Adopted under Commission jurisdiction without statute.
 - Adopted by two natural gas utilities/not uniform statewide.
 - Participation based on LIHEAP enrollment
- ◆ **Straight discount program:** California
 - Mandated by statute.
 - Across-the-board 20% discount, not varying based on income (or bill burden)
 - Uniform statewide program (though outreach may differ by company)

Forms of energy assistance programs in other jurisdictions: Ratepayer-funded programs

- ◆ **Mixed program design:** Pennsylvania
 - Recommended: percentage of income or percentage of bill
 - If not PIP or POB, utility must show that it is at least as effective as PIP/POB
 - Adopted under Commission jurisdiction without statute.
 - Individual program designs, though within regulatory “guidelines” established by Commission.
 - Gas and electric utilities
 - Different utilities do different designs:
 - PECO: tiered rate discount
 - Multiple: Percentage of Income
 - Multiple: Percentage of Bill
 - Columbia Gas: Percentage of income (minimum average past payment).

U.S. experience: Impact on payments

- ◆ Payment are not “perfect” but are vastly improved.
- ◆ Payments measured in two ways:
 - Number of payments
 - “Payment coverage ratio” (payment / bill = coverage ratio)
- ◆ Experience shows:
 - Payments of payment-troubled customers are 10+ per year.
 - Payment coverage ratios are roughly 80 - 85% in Pennsylvania.
 - Payment coverage ratios are 90%+ in NJ.
 - As bill burdens increase, payment coverage ratios decrease.

U.S. experience: Impact on arrears

- ◆ Arrears are not eliminated, but are vastly reduced.
- ◆ Most difficult to change payment patterns of customers with historically high arrears.
- ◆ Payment patterns improve over time.
- ◆ Impact on arrears measured in three ways:
 - Number of accounts with arrears decrease.
 - Dollar levels of arrears decrease.
 - Seasonality of arrears leveled.
- ◆ Biggest impact on arrears are with those accounts having the highest arrears.

U.S. experience: Impact on collection activities

- ◆ The incidence of service terminations for nonpayment are dramatically reduced (70% or more).
- ◆ The intensity of collection contacts decrease:
 - While in past, collections may have progressed to point of a posted disconnect notice, under program, collections occur with mailed “reminder.”
- ◆ Should not expect elimination (or even a reduction) in level of TOTAL collections activity.
 - By reducing collections toward low-income, utility can redirect collections toward other more productive accounts.
 - So, total collections remain the same, but are simply not attributable to low-income.

U.S. experience: Impact on revenues

- ◆ The financial impact on utility is not measured by amount of BILLINGS but rather on amount of RECEIPTS and at less cost of collection.
- ◆ **Indiana:** while program participants were BILLED 90% of what non-participants were billed, they PAID 111% of what non-participants paid.
- ◆ **Indiana:** both collection activity and low-income discounts reduced arrears. Low-income discounts reduced arrears more on a dollar-spent basis than did collection activity.
- ◆ Two conclusions: (1) low-income program can be revenue neutral (by increasing receipts even though reduced bills); and (2) low-income program can be more cost-effective in increasing receipts than the available collection alternative.

U.S. experience: Cost reductions

- ◆ There are cost offsets due to low-income program:
 - Bad debt decreases because payment responsibility for portion of bill is transferred to higher income households.
 - Bad debt decreases because low-income customers with more affordable bills pay better.
- ◆ Working capital decreases as arrears decrease.
- ◆ Customer service and collection expenses generally do NOT decrease, as customer service and collection activity simply transferred to other customers.
- ◆ Impacts on reduced expenses picked up in base rate cases.
 - Important to quantify only if there is a reconcilable rate rider to compensate utilities for program costs.

U.S. Experience: Usage Impacts

- ◆ No systematic usage increase has been found to occur as a result of a low-income affordability program.
- ◆ While no INCREASE usage occurs, programs tend to attract the highest use customers with which to begin (customers with low energy burdens choose not to participate).
- ◆ Two easy program mechanisms can be used to control usage:
 - An explicit connection between affordability program and usage reduction program, with high use participants referred to usage reduction.
 - A “fixed credit” program, which imposes cost responsibility for increased usage on customer, but allows customer to keep benefits of reduced usage.



Forms of Energy Efficiency Programs in other jurisdictions

- ◆ California – Low Income Energy Efficiency programs offered by electric and gas utilities
- ◆ Includes free weatherization, furnace repair or replacement
- ◆ Age, income, size of household and also disability form entitlement criteria



Energy efficiency – other jurisdictions, cont'd

- ◆ Connecticut – legislation requires delivery of low income residential programs
- ◆ Electrical programs delivered through community agencies; gas programs through a state Housing and Investment Fund for energy conservation loans and heating equipment upgrades



Energy efficiency – other jurisdictions, cont'd

- ◆ Illinois program since 1981
- ◆ 10 per cent of the benefits charge collected for the low-income energy assistance fund is provided for the low income weatherization assistance program
- ◆ Delivered through community agencies with priority to seniors and those with disabilities



Energy efficiency – other jurisdictions, cont'd

- ◆ Maryland - Columbia Gas Low Income Weatherization Program with Maryland Office of Weatherization
- ◆ Energy audits followed by weatherization; eligibility based on income and high gas usage



Energy Efficiency in other jurisdictions

- ◆ Massachusetts, Minnesota, Montana, New Jersey, New York and Oregon all also deliver low income energy efficiency programs



Topic 4: Rate-related measures and issues

- ◆ Not all low-income issues involve the design and implementation of a low-income “program.”
- ◆ Many low-income issues involve the basic, historic process of setting cost-based rates.
- ◆ Due to the attributes of low-income customers, several issues arise with respect to basic rates and charges that relate to the imposition of undue burdens based on inattention to cost-causation.

Topic 4: Rate-related measures and issues: cost causality

- ❖ Cost causality means that the customer causing the costs should bear the costs. Conversely, if a customer does *not* cause the costs, he/she should not pay them.
- ❖ “Causation” is measured by a “but for” test: would the costs have been incurred but for the actions of the customer?
- ❖ Non-cost-based fees should be strictly scrutinized:
 - ❖ General customer service expenses should not be passed through in fees that disproportionately fall on low-income customers.
 - ❖ At the least, low-income should be exempt from such fees.
 - ❖ Disconnect/reconnect fees, collection fees, connection fees.

Topic 4: Rate-related measures and issues: basic rate structure

- ❖ Cost causality applies to the basic rate structure also, not just to fees.
- ❖ Inverted rate structure appropriate in an increasing cost environment.
- ❖ Cost-causation, however, means that:
 - ❖ appropriately sizing the first block is as important as getting the rate differential between blocks correct.
 - ❖ Seasonal rate differentials applied to the first block are rarely justified on a cost-causation basis.
 - ❖ Lost rate recovery/lost fixed cost recovery is rarely justified from the first block on a cost-causation basis.
 - ❖ Rate recovery of expensive peaking fuels/purchased power costs can rarely be justified from the first block on a cost-causation basis.

Topic 4: Rate-related measures and issues: the use of “price signals”

- ❖ Many economists argue that the rate structure should be used to send “price signals” to customers.
- ❖ The notion of “price signals” should not substitute for a rigorous analysis of the cost-causation relationship between charges and costs.
 - ❖ A non-cost-based charge cannot be justified on the basis of sending a “price signal.”
- ❖ “Price signals” should be supported by data regarding:
 - ❖ The need for the price signal
 - ❖ The effectiveness of the price signal
- ❖ Consumer “price signals” are rarely effective for low-income customers.
 - ❖ Cannot control usage by “choice” without substantial investment.
 - ❖ Cannot afford to pay bills in the first instance.

Topic 4: Rate-related measures and issues: reciprocity of burdens and benefits

- ❖ The basics of cost-causation counsel that if a customer causes the cost to be incurred, that customer should pay the cost.
- ❖ There should be, however, a reciprocity in costs and benefits. The converse should be: if a customer causes a benefit to be incurred, that customer should reap that benefit.
- ❖ The reciprocal nature of the issue of “cost-causation” is frequently ignored. For example:
 - ❖ If low-income customers disproportionately contribute cash deposits, those customers should be allocated the benefit of the rate of return avoided by that customer-contributed capital.
 - ❖ If low-income customers disproportionately pay non-cost-based late fees, those customers should be allocated the revenue from those fees.
 - ❖ If low-income weatherization helps reduce bad debt and/or working capital, those avoided expenses should be captured and allocated back to additional weatherization.

Topic 4: Rate-related measures and issues: principles to be pursued

- ❖ The principle of cost-causation should be applied to miscellaneous customer service fees and charges as well as to basic rates.
- ❖ Cost-causation is measured by a “but for” test.
- ❖ Cost-causation may manifest themselves in non-price ways (e.g., size of initial consumption block).
- ❖ A rate based on “price signals” must be rigorously supported by evidence as to need and effectiveness.
- ❖ There should be reciprocity in “cost-causation.”
 - ❖ Benefits as well as burdens should be allocated back to the customers who “cause” them.

Rate affordability assistance: how does this issue of “cost-based rates” fit in?

- ◆ “Cost-based” is not a strict test. The term “costs” has many aspects to it:
 - Fully-embedded vs. marginal
 - Original cost vs. replacement cost
 - Long-run marginal cost vs. short-run marginal cost
 - Fixed costs vs. variable costs
- ◆ Cost subsidies have been used to promote social goals in the past:
 - Rural electrification promoted by rate averaging
 - Basic telephone service promoted by subsidies
 - Economic development promoted by fixed cost contribution theory
 - Carbon reduction promoted by “conservation incentive” rates.

Rate affordability assistance: how does this issue of “cost-based rates” fit in?

- ◆ Non-cost based rates approved when they are a BURDEN to low-income:
 - 1.5% per month late fees are not cost-based.
 - Deposits are not cost-based.
- ◆ Subsidy need not be cost-based if it is a PAYMENT (akin to rents).
 - Support of universal service a payment for grant of right of eminent domain.
 - Support of universal service a payment for grant of right to use public rights-of-way (e.g., streets, alleys)



Topic 5: Customer Service Issues and Arrears Management Programs

- ◆ Payment period
- ◆ Disconnection
- ◆ Security deposits
- ◆ Arrears management programs

Topic 5: Customer Service Issues and Arrears Management Programs

LIEN supports terms and conditions for utility service (e.g. consumer security deposit requirements, payment time-lines and plans, disconnection and reconnection policies, termination moratoria) that are in the best interests of low-income consumers, and:

- ◆ will not add to the service costs and penalize low-income consumers who are experiencing payment difficulties,
- ◆ will assist low-income consumers in accessing and maintaining essential utility service.

Payment options

- ◆ Low-income customers should be provided equal access to payment options meeting their needs.
- ◆ Payment periods:
 - Customers on fixed incomes may need to be able to specify the date on which they make payments (e.g., Entergy “pick-a-date” program) to ensure that payments are not due before income is received.
 - Customers using external payment centers should not be penalized for any lag in transfer and posting of payments.



Equal billing



- ◆ All distributors should offer equal billing plans to low-income consumers.
- ◆ In addition, equal billing should be available to low-income consumers who have enrolled with an electricity retailer. Community legal clinic clients have fallen into default on their electricity bills when they have switched to retailer supply because their equal billing option disappears.
- ◆ Credit history should not be a barrier to low-income consumers enrolling in an equal billing plan since such plans will assist in reducing payment defaults.

Late payment fees

- ◆ Late payment charges that disproportionately and adversely affect low-income customers can be a barrier to accessing electricity service as they add to service costs and increase the risk of disconnection if low-income households are not able to make full bill payments.
 - Late payment charges cannot be justified as a “cost-based” fee.
 - Late payment charges cannot be justified as an “incentive” to pay, particularly for low-income customers.
 - Late payment charges cannot be justified as either “cost-based” or as an “incentive” for customers current on deferred payment plans.
- ◆ There should be a mandatory exemption or waiver of late payment charges for low-income consumers. A late payment fee waiver is also a component of the basic consumer protections in the LIEN proposal for a ratepayer-funded *Ontario Home Energy Affordability Program for Low-Income Households*



Disconnection



- ◆ An over-riding goal of LIEN's comprehensive strategy to address energy poverty is to proactively prevent service disconnections for low-income consumers who cannot afford to pay for their utility bills and other basic necessities.
- ◆ The establishment of a low-income rate affordability program will be a major step towards avoiding electricity disconnections for arrears.



Disconnection



- ◆ Crucial that LDCs' disconnection policies and procedures maximize the opportunities for low-income consumers facing service termination due to arrears to access emergency energy funds that they may be eligible to receive to prevent disconnection and/or restore service.
- ◆ This should be done in consultation and coordination with the relevant provincial ministries, municipal service managers, social service agencies and/or delivery agents.



Disconnection moratoria



- ◆ No service termination for low-income households in the heating and cooling seasons. OEB should protect against weather-induced death and illness.
- ◆ Other disconnection moratorium conditions should take into account age and medical conditions (households where infants and/or persons over 65 years of age reside, medically fragile)

Disconnection

- ◆ While the over-riding policy is to prevent the disconnection of service, the “threat” of disconnection can be as harmful as actual disconnection.
- ◆ Consumer protections are needed with respect to the use of disconnect notices:
 - Utilities should not threaten to disconnect in instances they do not intend to disconnect.
 - Utilities should not “over-notice” the potential of disconnections, as over-noticing leads to customers ignoring “legitimate” notices.
 - Utilities should not threaten a disconnection under circumstances where disconnection is not permitted (e.g., current on payment plan, protected by medical conditions, protected by severe weather moratorium).

Security deposits

There should be a mandatory exemption for low-income households from security deposit requirements which can adversely impact, or even exclude, these households from accessing energy.

- ◆ Other options – alternatives to cash security deposit, i.e. letter of guarantee/letter of credit
- ◆ OEB has set guidelines for collection of deposits, including payment by instalments

Arrears management programs

- ◆ LIEN's proposal for a ratepayer-funded *Ontario Home Energy Affordability Program for Low-Income Households* also includes an arrearage management program comprised of the following components:
 - ◆ Arrears are to be retired over a two-year period;
 - ◆ Customers are to make co-payments toward their arrears;
 - ◆ Co-payments are to be set equal to an affordable percentage of income (1% per year);
 - ◆ No pre-condition is established for the grant of arrearage management credits; and
 - ◆ The appropriate response to non-payment is to place the program participant in the same collection process as any other residential customer.

Topic 6: CDM/DSM Programs for Low-Income Consumers



What is needed:

- ◆ Permanent, adequately-funded energy conservation programs for low-income consumers, with targets for the number of homes to be retrofitted annually.
- ◆ Such programs should be available at no cost to eligible participants and be equitably accessible province-wide.



Energy conservation and low-income consumers

Conservation is a cheap, fast, clean solution to energy crunch and climate change crisis

More efficient use of energy:

- reduces pollution major respiratory health improvements especially for youngest and oldest
- avoids cost of new generating plants
- reduces energy bills and lessens effect of rising prices
- makes housing more affordable & comfortable

BUT, it won't happen in low-income residential sector without financial investment ...



CDM/DSM measures



- ◆ To achieve deep reductions in energy use, fuel-neutral programs should have a wide suite of measures (draftproofing, insulation, heating equipment upgrades) and be tailored to distinct low-income consumer groups: homeowners, tenants in private rental housing, and tenants in social housing.



Why is tenant involvement important?

- ◆ Deep reductions in energy use through energy efficiency will not be fully realized if there isn't a concurrent energy conservation education program to help shift tenants behaviour
- ◆ The best way to deliver an energy conservation program to low income tenants is by having low tenants design and deliver the energy conservation program



Why is tenant involvement important?

- ◆ Tenants can identify unforeseen opportunities and challenges in energy saving programs because they know their situation better than any of us.
- ◆ Tenant leaders set a good example and teach fellow tenants about saving energy – this results in real behaviour changes
- ◆ What motivates tenants to save energy will vary by situation, but we know it's not always about saving money!

Tenant-led energy saving programs exist

- ◆ Brahms Energy Savings Team (BEST) and Walpole is Reducing Energy (WiRE) were two successful tenant-led energy conservation programs run in TCHC neighbourhoods (2005, 2007).
- ◆ Low Income Tenant Energy Savers (LITES) is engaging tenants living in private high rise buildings in both Ottawa and Toronto
- ◆ The City of Toronto supports community-led conservation programs and it is being realized through Live Green Toronto

Important Program Principles

- ◆ Free for tenants to participate
- ◆ Open to everyone in the building, regardless of income/benefits.
- ◆ Tenants help design and deliver the program
- ◆ Peer education (tenants teaching tenants)
- ◆ Offers tools and materials that enable tenants to start saving energy right away (e.g. power bars, light bulbs, etc.)
- ◆ Supportive landlord who will 'do their part' (appliance replacement, retrofits, maintenance)

Brahms Energy Savings Team (BEST)

- 342 units and about 850 tenants (350 of whom are children)
- hired and trained six tenants from the buildings as community education and outreach workers (or Animators).
- Animators designed and delivered an energy education program that engages their fellow tenants in their primary language (English, Farsi, Somali, and Tamil) and in culturally appropriate ways.
- 75% of households participated
- 6.6% in energy reduction annually
- won 2006 Green Toronto Award for best community project

Walpole is Reducing Energy (WiRE)

- Downtown east end, 118 units
- 3 animators delivered the program
- WiRE reached 85 households
- 90% found the material easy to understand and use
- 87.5% said they learned new things
- 87.5% felt they saved money as a result of the WiRE Program
- 96.4% also said they were more comfortable



Low Income Tenant Energy Savers (LITES)

- Saving Energy: The 6-Step Guide to Tenant Action
- Regional Workshops – Toronto, Ottawa, Windsor
- 2 Tenant-led Energy Conservation Programs in private high rise buildings
 - ◆ 2 apartment buildings in Ottawa (owned by TransGlobe)
 - ◆ 2 apartment buildings in Toronto (owned by CAP REIT)



DSM for Low-Income Consumers in Ontario

- ◆ Low-income housing is also older and more in need of maintenance than the Ontario average, implying there are significant energy efficiency gains to be made
- ◆ Low-income households have fewer appliances than the average home, although these appliances and heating systems in low-income housing are older than the average, and hence less energy efficient

Access and control issues

- ◆ Much of the energy burden of low income consumers is “inelastic”
- ◆ Examples include heating, water heating, lighting, and basic appliances such as refrigeration
- ◆ Low income consumers lack control or access to capital in terms of building envelope, insulation, weatherization, efficient appliances



Characteristics of low-income dwellings

- ◆ More likely to be space heating
- ◆ More likely rented
- ◆ More likely spending relatively more on basic energy needs than higher income quintiles

Household equipment

- ◆ 27% of the lowest household income quintile have electric heating as their principal heating equipment (compared to 12.9% for the average income household)
- ◆ 62.6% of lowest income households had principal heating equipment over 10 years old (compared to 48.3% in highest income households)
- ◆ 39.3% heated hot water with electricity in lowest income quintile, compared to 15.1% in highest quintile
- ◆ The age of heating equipment also implies efficiency and cost differences in absolute terms
- ◆ Impacts of these differences on lowest income households are disproportionate



Types of low-income energy efficiency programs

- ◆ Energy audits
- ◆ Weatherization including weather stripping, caulking, attic insulation, storm windows
- ◆ Appliance replacement, particularly refrigerators
- ◆ Furnace repair or replacement
- ◆ Fuel switching (e.g. electrical space heating to natural gas, propane or oil in Vermont)



Societal benefits of low-income DSM

- ◆ Participation in energy savings and climate change
- ◆ Significant component of residential energy use
- ◆ Avoidance of energy cost mobility and improved educational outcomes for youth



Societal benefits of low-income DSM cont'd

- ◆ Reduced need for public expenditures on health, fire, housing and homeless shelters
- ◆ Reduced emergency calls to utilities
- ◆ Reduced utility costs re collection, termination, reconnection
- ◆ 17 to 300 percent “benefit adder” cited*



Topic 7: Time of Use Pricing; Sub-metering issues; energy retailers

Energy Retailers:

- ◆ Addressing issue of early termination fee for vulnerable low-income households under certain conditions



Who's calling for Smart Meters, sub-Metering?

Ontario government

- have facilitated expansion of Smart Meter initiative to condominiums and multi-residential rental sectors to reduce electricity peak demand

Landlords

- want to transfer in-suite utility costs directly to tenants

Suppliers

- Smart sub-metering providers see business opportunity in multi-residential rental sector



Smart Meters; sub-metering



Smart meters

- Record how much, and at what time of day, electricity is used (unlike current mechanical/analog meters)

Sub-meters

- Installed behind master or bulk meters; measure electricity consumed in-suite in order to individually bill tenants. Electricity sub-meters can also be smart meters.

Smart sub-metering

- Landlord with bulk meter is the customer of the electricity LDC; smart sub-metering provider, acting on behalf of the landlord, issues bills to each tenant household in the building for in-suite consumption; collects payments and remits to landlord

How many tenants; where do they live?

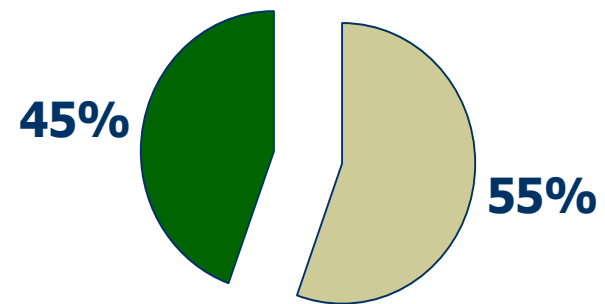
- ◆ 28.8% of all Ontario households are renters (1,312,295 tenant households)
 - 40% live in apt. buildings with five or more storeys
 - 29% live in apt. buildings with fewer than five storeys

Housing affordability and tenants

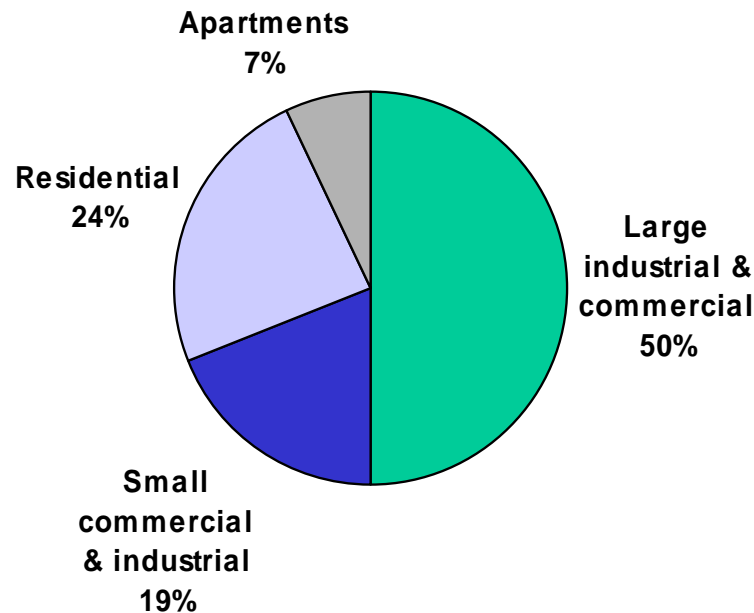
- ◆ 36% of Ontario's tenant households are living at or below the "poverty line" (2001 Census)
- ◆ The median income of Ontario's renter households is less than half of homeowner households (\$33,447 vs. \$74,712) – 2006 Census
- ◆ Ontario renter households represent 31% of all Ontario households, but comprise 66.4% of Ontario households in core housing need (2001 Census)

Housing affordability and tenants

- ◆ 45% of Ontario's tenant households pay 30% or more of their household income on shelter costs (including utilities)
- ◆ 20% pay 50% and over of their household income on shelter costs - and are at risk of homelessness
- ◆ Impact of smart sub-metering....



What percentage of electricity use in Ontario is from apartments?



- ◆ Our best estimate is that bulk-metered apartments, i.e. those that are candidates for sub-metering, comprise only 7% of Ontario's annual electricity consumption



Tenants and electricity use

Currently:

- ◆ most tenants in multi-residential private rental sector pay for utilities in their rent
- ◆ estimated that 85% to 90% of multi-residential buildings are bulk-metered, and most Ontario apartment buildings are not electrically heated
- ◆ most social housing tenants pay for utilities in their rent; only 18% of tenants pay electricity bills directly



Conservation does matter for tenants

- ◆ It's their home
- ◆ They pay for utilities – either in rent or directly
- ◆ They pay when landlords apply for above-guideline rent increases for “extraordinary” increases in utilities costs, or for capital expenditures for energy (or water) conservation work
- ◆ They are affected by climate change
- ◆ Their early engagement is essential for maximizing energy savings



Conservation does matter for landlords

- ◆ Utility prices are rising, increasingly volatile operating cost
- ◆ Need to maintain and environmentally retrofit their buildings to protect their assets and to ensure ongoing marketability, minimized vacancy loss
- ◆ They are affected by climate change
- ◆ Their early engagement is essential for maximizing energy savings



Who will get a Smart Meter?

- ◆ Original target was to install 4 million smart meters for all Ontario customers (residential) by 2010 at a cost of \$1 billion
- ◆ Interim target of 800,000 meters in homes and small businesses by 2007
- ◆ “smart metering initiative” now means equipping each household in Ontario with a smart meter over time

Who will get a Smart Meter? cont'd

- ◆ government had been unclear on whether individual Smart Meters would be installed in each apartment and condo unit in the province
- ◆ initiative now includes condos (Bill 21, *Energy Conservation Responsibility Act, 2006*) and rental sector (Bill 109, *Residential Tenancies Act, 2006*) – voluntary, not mandatory
- ◆ Condo smart metering & smart sub-metering regulations in effect as of December 31, 2007; OEB has issued Smart Sub-metering Code and is licensing smart sub-metering providers

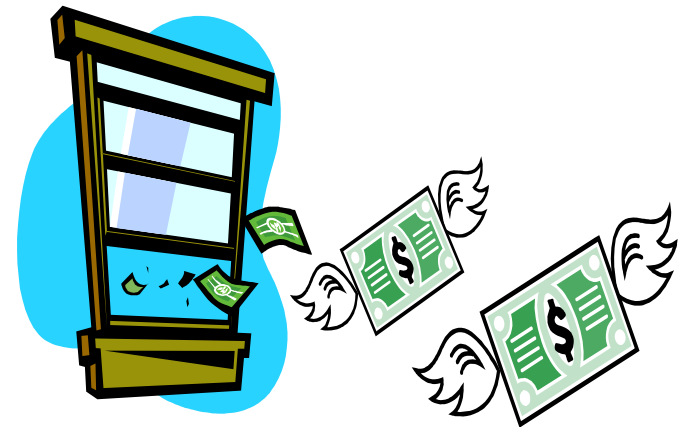
Is Smart Metering the answer, effective conservation?



- ◆ intended to encourage consumers to shift electricity use to off-peak hours
- ◆ BUT, low-income households have least capacity to shift energy use (families with children, seniors, disabled, unemployed)

If tenants pay directly for in-suite energy use, will they will use less?

- ◆ Landlord controls building envelope (windows, insulation), HVAC systems, appliances such as fridges
- ◆ Tenants control discretionary energy use in-suite
- ◆ Both impact on energy use reduction efforts



If tenants pay directly for in-suite energy use, will they will use less?

- ◆ Smart sub-metering energy savings claims vary – 10% to 40%, 15% to 25%, average of 25% to 33% - but, no expert, neutral study undertaken to date with detailed analysis of how smart sub-metering savings are being achieved
- ◆ Study should include cost-benefit analysis of sub-metering vs. energy efficiency retrofits vs. energy conservation education and examine:
 - the characteristics of the buildings and individual units where smart sub-meters are installed,
 - who is or is not achieving energy savings and why, and
 - the impact on housing and financial security of the residents

If tenants pay directly for in-suite energy use, will they will use less?

110-unit building in Toronto – smart sub-metered

- ◆ **41% of units paid more** (reduced rent + electricity bill), 12% paid same, **47% paid less**
- ◆ According to a sub-metering company, in multi-unit buildings:
 - 70% of residents use 50% of electricity (low users)
 - 20% of residents use 25% of electricity (medium users)
 - 10% of residents use 25% of electricity (high users)

Split incentive between landlords and tenants

- ◆ landlords want to minimize costs and make a profit; tenant seeks safe, comfortable, affordable home
- ◆ tenants don't have authority to invest/retrofit – or financial resources
- ◆ Smart sub-metering shifts financial incentive to provide and maintain an energy-efficient building & appliances for tenants – could undermine conservation efforts



Energy efficient fridges

- refrigerator replacement was the 2nd most recommended energy-saving measure in SHSC's Green Light initiative energy audits
- In 1990, refrigerators larger than 16.4 cu.ft. used more than 1000 kWh annually on average – cut in half by 2003



Smart sub-metering & tenants

- ◆ Part VIII, sections 137 and 138 of *Residential Tenancies Act, 2006*– still to be proclaimed, regulations to be developed
 - Landlords may install Smart Meters without sitting tenant consent; transfer electricity costs directly to tenants, outside of rent
 - Provisions for rent reductions and energy conservation obligations on landlords to be worked out in regulations

Smart sub-metering & tenants

- ◆ Currently, smart sub-metering activity taking place under section 125 of the RTA
- ◆ requires **consent** of sitting tenant before landlord can transfer the cost of electricity use to the tenant directly and decrease rent; proceeding without consent, landlord may be subject to a fine of up to \$10,000 under RTA section 31(1)
- ◆ if sitting tenant does not consent, landlord may rent unit without utilities on turnover

Smart sub-metering & tenants

Lease agreement clause – consent??:

- ◆ *"The Tenant also acknowledges that where hydro is currently included in rent the Landlord, in its sole discretion, may at anytime chose to meter the Tenant's rented premises separately and transfer responsibility for payment of hydro directly to the Tenant based on the Tenant's own consumption. In such an event, the Landlord shall reduce the monthly rental in accordance with applicable Rent Control Legislation and the Tenant hereby consents to such transfer or responsibility for payment of hydro."*
- ◆ These clauses may not be legal.

Effective conservation & fairness

- ◆ Crafting of the regulations under Part VIII of the RTA will be crucial to ensuring that:
 - the energy conservation obligations on landlords will be those most effective in reducing energy consumption/costs for tenants, and in helping to meet province's conservation goals
 - the rent reduction after tenants take on the in-suite utility costs will be calculated fairly



Topic 8: Program Funding Mechanisms

- ◆ Ratepayer-funded
- ◆ Stability, predictability
- ◆ Equitable
- ◆ Incorporated in whole cost of system
- ◆ Burden of a very expensive system otherwise very inequitably borne by the most vulnerable



Rate Assistance: Funding through rates the most reasonable way to support low-income programs

- ◆ Legislative support is not the most appropriate way:
 - Legislative funding is uncertain (makes program planning impossible).
 - Legislative support is inflexible.
 - If prices go up, legislature cannot respond. If weather is severe, legislature cannot respond.
 - If prices go up, weather is severe, rate-based assistance automatically goes up as sales volume goes up (and vice versa).
- ◆ Legislature support involves no reciprocity. The public provides all the support, but the utilities keep all the benefits from reduced costs.



Rate Assistance: 4 different ways to collect a “system benefits charge”

- ◆ A straight per meters basis (e.g., Illinois)
- ◆ A straight volumetric basis founded on a per unit of energy (e.g., Maryland, New Jersey)
- ◆ A volumetric basis founded on a percent of revenues (e.g., Maine)
- ◆ A mixed volumetric/per meters (allocate between customer classes volumetrically but collect within customer class on a per meter basis) (e.g., Colorado).



Rate Assistance: It is appropriate for ALL customer classes to contribute

- ◆ The nearly universal rule is that all customer classes contribute (NH, ME, NJ, MD, OH, IN, MN, UT, CO, AZ, CA)
 - Only Pennsylvania allocates exclusively to residential (that decision is subject to court review).



Rate Assistance: It is appropriate for ALL customer classes to contribute



- ◆ From a policy perspective, it is appropriate to charge all customer classes:
 - Universal service is a “public good” that should be paid by all.
 - Universal service yield public benefits that benefit all customer classes (e.g., consider economic development impacts; reduced health care costs; impact of more affordable housing on employee recruitment and retention).
 - Universal service yields direct benefits to all customer classes (e.g., consider wage supplements for low-wage employers).
 - No single customer class “causes” need for universal service. Nonparticipating residential ratepayers no more cause universal service costs than do nonparticipating commercial/industrial ratepayers.



Usage Reduction: Program Funding – precedents in other jurisdictions

- ◆ Low income DSM programs offered to eligible participants free of charge
- ◆ One model: proportion of rates collected
- ◆ Another model: A Universal System Benefits Charge (e.g. Montana)
- ◆ May be supplemented by additional sources: federal or state/ provincial governments; grants and donations including in-kind



Usage Reduction: Precedents cont'd

- ◆ **Vermont:** statewide provider, Efficiency Vermont is funded by an energy efficiency charge on electric bills while the gas programs are funded by a variety of funding sources
- ◆ In **Oregon**, DSM budgets are embedded in rates, including low income programs mandated by the state.



Usage Reduction: Precedents cont'd



- ◆ **New York** provides electric efficiency program including for low-income customers under a systems benefits charge.
- ◆ **New Jersey** has a Societal Benefits Charge created by legislation which is aimed at improving energy affordability through energy efficiency measures.



Usage Reduction: Precedents cont'd

- ◆ **Montana's** weatherization program is funded by a Univeral System Benefit Charge, also legislated by the state
- ◆ **Minnesota** allocates a percentage of state revenues for gas and electric utilities to energy conservation improvement which is required by law and includes low income programs

Usage Reduction: Precedents cont'd

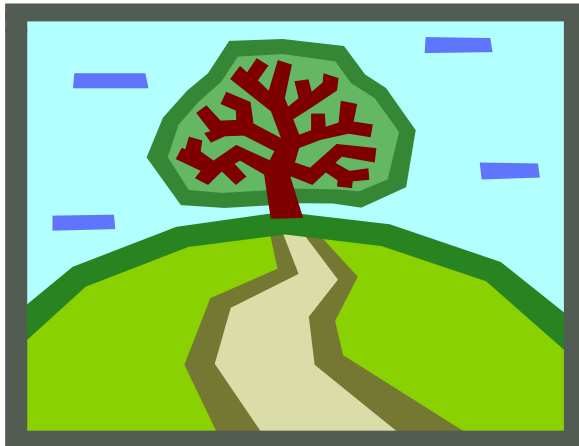
- ◆ **Maryland's** Electric Universal Service Program assists low income customers with their electric bills; most of the funding comes from industrial and commercial customers with the remainder from residential customers at 40 cents per month.
- ◆ **Illinois** administers a monthly systems benefit charge of .40 on residential gas and electric accounts, and higher amounts on commercial and industrial accounts for a state fund for low income energy efficiency



Usage Reduction: Precedents cont'd

- ◆ **Connecticut** administers a system benefits charge for energy efficiency on all electricity sold in the state; a portion is spent on low income energy efficiency
 - ◆ **California** obtains funding for its low income energy efficiency programs, both gas and electric, from a system benefits charge on customers bills.
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Going Forward



- OEB needs to initiate a generic hearing on a low-income rate affordability program
- Province-wide low-income CDM/DSM programs that provide deep reductions in energy use