



*Your Home Town Utility*

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**Conservation and Demand Side Management  
2008 Annual Report**

**Ontario Energy Board File No. ED-1999-0287  
Docket Number RP-2004-0203 / EB-2004-0519**

**March 31, 2009**

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## BACKGROUND

On March 22<sup>nd</sup>, 2005, Erie Thames Powerlines Corporation (“Erie Thames”) was granted final approval for its Conservation and Demand Management (“CDM”) Plan, as filed with the Ontario Energy Board (“Board”) under docket number RP-2004-0203 / EB-2004-0519. The Board’s decision indicated that annual reporting “should be done on a calendar year and should be filed with the Board no later than March 31<sup>st</sup> of the following year” and would be subject to public review. On February 2<sup>nd</sup>, 2009 the Board issued “Requirements for Annual Reporting of Conservation and Demand Management (“CDM”) Initiatives” that explained more fully the requirements for the 2008 reporting year. This report has been prepared in accordance with those guidelines.

As Erie Thames did not apply for an extension of funding under the Third Tranche of Market Adjustment Revenue Requirement (MARR) or receive incremental CDM Funding Approved in Rates and had exhausted their Third Tranche MARR funding prior to filing the 2007 Annual Report for CDM Third Tranche Funding, this report will include only the Introduction, Lessons Learned, Conclusions and completed Appendix D. Please note that Appendix D incorporates corrections to errors identified in the 2005, 2006 and 2007 annual reports.

## INTRODUCTION

Erie Thames is “Your Home Town Utility” to approximately 14,000 customers, in 11 communities, across 7 municipalities, which in itself presents a challenging task of delivering initiatives to all communities equally and fairly. From the outset, Erie Thames CDM strategy was to *Educate, Encourage, Equip* and *Empower* customers through various CDM initiatives.

### **Erie Thames CDM Strategy – *Educate, Encourage, Equip and Empower***

#### ***Educate***

It all begins with education, and with the basics a kilowatt hour. Customers have difficulties identifying with what a kilowatt hour is, what it takes to use a kilowatt hour and what it takes to generate a kilowatt hour. Initially, all a customer generally knows is how much their electricity bill is. Therefore it starts with developing two key relationships. The first being the relationship between a customer’s energy consumption and the cost of the energy they consume; and second being, the relationship between a customer’s energy consumption and the energy industry and the effect their consumption has on the electricity market. Both of which are crucial for meaningful growth and development of the ‘conservation culture’ in Ontario.

Once the relationships are understood the second concept was introduced; the concept of the secondary price tag. Unfortunately, society has not been programmed to think long term to think about the cost the product after the fact. For example, why would a customer purchase a CFL light bulb that lasts 8 years for \$3 when a pack of 4 incandescent bulbs, that last 6 months to a year, can be picked up for \$1. Consumers require education surrounding the decisions they were making in order to understand the impact of their decisions based on the initial cost of a product and the impact those choices have on their energy consumption, energy costs and the electricity industry.

Once the two concepts were firmly established additional education about products, behaviours, technologies, etc. were added to the communications strategy, thereby providing customers with the knowledge to make educated and informed decisions about products they purchase, upgrades they make and processes they implement and their impacts on their energy consumption, costs and the electricity industry.

#### ***Encourage***

*Education* alone is not enough to create a conservation culture as customers need more than a brochure, they need something real that they can install and observe makes a difference. Customers are often hesitant to outlay for new products with higher costs when there old, reliable standbys can be purchased for a fraction of the cost. Encouragement was a key component to bridging the gap between old technology and new technology. Giveaways, exchanges and incentives are all mechanisms to

*encourage* customers to evaluate energy efficient technologies and/or process with the underlying objective that customers use the technology/implement the process; observe the results first hand; and then adopt the technology and/or the process and install additional technologies or further implement the process.

### ***Equip***

*Education* and *encouragement* together still do not provide the complete package required for a successful CDM program. Customers need tools that communicate and demonstrate electricity consumption and cost information in a meaningful and useful format; a tool to build the relationship and make the connection between consumption and cost. This is crucial, especially to residential customers, as noted earlier, they generally do not understand what a kilowatt hour represents, but certainly understand what a dollar spent represents. The tools therefore, provide customers with the means to easily and effectively measure changes to their life styles and/or implement energy efficient technologies that they have were made aware by way of the education component and received through encouragement component.

### ***Empower***

Through ***Education, Encouragement*** and ***Equipment***, Erie Thames is ***Empowering*** customers with the information, the incentives and the tools to make educated decisions when purchasing new products and empowering them to evaluate and monitor energy efficient products and actions for effectiveness. This empowerment in turn drives the conservation culture and a society focused on sustainability.

## LESSONS LEARNED

Erie Thames learned many lessons while researching, planning and delivering CDM initiatives including:

- Measuring and Evaluating Program Results
- Partnering for Success
- Simple and Low Cost Result Oriented Programs
- Reevaluate CDM Plan

### **Measuring and Evaluating Program Results**

From Erie Thames experiences, it is apparent that programs need to be evaluated prior to implementation and after implementation to truly get a sense of a program's success. In addition, Erie Thames identified that program success is not necessarily a measure of its Total Resource Cost Performance alone as some programs that specifically address education customers cannot be evaluated quantitatively but are critical to building awareness and developing the culture of conservation. Furthermore, identifying the key success factors as well as those factors where the program missed the mark is essential to delivering subsequent successful programs.

### **Partnering for Success**

Partnering with neighbouring LDC's, channel partners, customers and stakeholders increase a programs likelihood of success and allowed Erie Thames to pilot new technologies and build relationships. The benefits of partnering with various entities has outlined below.

#### Local Distribution Companies

Partnering with other Local Distribution Companies can increase program exposure and uptake through joint efforts and provides consistent marketing messaging across distribution territories. In addition the partnership creates opportunities to reduce program costs throughout the entire program process from planning to implementation i.e. economies of scale on technology and marketing materials

#### Channel Partners

Channel partners such as contractors and retail stores increases program exposure and uptake at a minimal cost as both the channel partner and the LDC benefit from the relationship. In addition these partners provide valuable insight for program design and implementation.

## Customers

LDC's have a vast pool of CDM resources to work with, pull ideas from; evaluate new technologies on and test initiatives with; that pool being their customers. Developing working relationships with customers on all levels empowers customers by giving them the sense that they are important and that their needs are important to the LDC, which thereby further engages their interest and participation. In addition, the relationships provide the LDC with valuable feedback on programs that can then be utilized in the development and deployment of future programs. Furthermore customers can act as an army of independent marketing agents that will further

## **Simple and Low Cost Result Oriented**

CDM programs need to deliver tangible results to customers, while at the same time the implementation process to achieve the results must remain simple and relatively low in cost. As these easy to implement, low cost initiatives pay dividends for customers, their level of trust in future programs increases, while at the same time their resistance to increasing their financial investment in additional conservation programs decreases.

## **Reevaluate CDM Plan**

The CDM plan needs to be dynamic and change in order to effectively provide services to customers as their knowledge and uptake of energy efficient products and activities increase, with advances in technology and with changes in the energy and regulatory market.

## Comments on Program Success

Erie Thames feels that the programs implemented have had an extremely positive impact on customer education levels, uptake and engagement and will continue to build on the momentum that has been achieved. Table 1 below summarizes the programs.

**Table 1 – Program Summary**

<b>Program</b>	<b>Success (High, Medium, Low)</b>	<b>Continue (Yes / No)</b>	<b>Notes</b>
LED Seasonal Light Exchange	High	Yes	Extremely successful program that motivates customers to replace all seasonal lights. Customers commend leadership efforts and appreciate the opportunity to save electricity, lower their costs and do the right thing.
Conservation Awareness Marketing Campaign	High	Yes	Very successful and a necessary component of education customers, promoting programs and encouraging customers as technology advances.
Conservation Website and Tool Set	High	Yes	Very successful program that will continue to assist customers with their conservation efforts.
Co-Branded Mass Marketing EKC Program	High	Yes	Extremely successful program that motivates customers to upgrade to efficient technologies.
Commercial and Industrial Learning Session and Energy Management Tool	Medium	Yes	Very successful and a necessary component of education customers, promoting programs, encouraging customers and building relationships as technology and the electricity market evolve.
Large User Demand Avoidance Audit	Low	No	Program could continue but be paired with ERIP to further encourage energy efficient retrofits.
LED Traffic Light Retrofit Incentives	High	Yes	Program could continue until all Traffic Light Systems are converted within License Distribution Territory.
Street Light Conversion Incentives	Medium	Yes	Program could continue until all Street Light Systems are converted within License Distribution Territory.
Distribution Loss Reductions	Medium	Yes	Program could continue but needs to be tied into asset management, asset optimization and smart grid.
Smart Meter Pilot	High	Yes	Program will continue under rate based funding.

## CONCLUSIONS

Given the funding granted under the Third Tranche of Market Adjusted Revenue Requirement, Erie Thames maximized the funding in delivering a portfolio of CDM programs that *educated, encouraged, equipped* and *empowered* customer to be conservation champions.

In 2005, programs were deployed addressing the educating and encouraging components, while in 2006, Erie Thames focused not only on *educating* and *encouraging* customers, but rolled out the most crucial component, *equipping* customers with tools to measure energy savings with the deployment of a residential and commercial and industrial web based energy management programs, successfully completing the conservation loop. Finally in 2007, Erie Thames piloted new technologies for smart metering and continued to promote the highly effective traffic and street light conversion programs.

Reviewing the results, over the duration of the program Erie Thames has reduced energy consumption by 1.03 million kWh or enough to power 82 homes for a year at a cost of \$0.26 per kWh and reduced peak demand by 43 kW at a cost of \$6209.47 per kW. When removing funds spent on smart metering the results improve to \$0.13 per kWh and \$3,244.5 per kW. In addition, the programs also reduced peak demand by 43 kW. Furthermore, over the life cycle of the technology the programs will deliver 4.57 million kWh of energy savings or enough to power 317 homes for year at a cost of \$0.06 per kWh.

Erie Thames is proud of the energy savings its programs have helped customer achieve and has carried forward the lessons learned into current programs that are continuing to educate, encourage, equip and empower customers. In addition, Erie Thames looks forward to playing a significant role in the development and delivery of future conservation programs that will continue to develop the 'conservation culture' in Ontario and inspire customers to be energy managers and conservation ambassadors.

## Appendix D - Total Life Evaluation of the CDM Plan

Table is to be completed manually by totalling the information from each year of activity

	§ Cumulative Totals Life-to-date	Residential	¶ Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	• Smart Meters	Municipal - Traffic Lighting	Municipal - Streetlighting
<i>Net TRC value (\$):</i>	\$ 169,781	\$ 72,440.79	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0	\$ 122,089.00	\$ 5,455.00
<i>Benefit to cost ratio:</i>	3.08	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.98	1.92
<i>Number of participants or units delivered:</i>	848	800	-	17	-	15	-	1	NA	11	4
<i>Lifecycle (kWh) Savings:</i>	4,457,219	1,844,840	-	-	-	-	-	-	-	2,400,500	211,879
<i>Total kWh saved (kWh):</i>	1,039,417	481,846	-	-	-	-	-	-	-	492,790	64,781
<i>Total peak demand saved (kW):</i>	43	42	-	-	-	-	-	-	-	0	1
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.00061	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	0.00086	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA
<i>⌘ Gross C&amp;DM expenditures (\$):</i>	\$ 267,380.39	\$ 43,354.06	\$ -	\$ 11,296.79	\$ -	\$ 2,756.00	\$ -	\$ 10,000.00	\$ 127,691.81	\$ 14,828.00	\$ 27,250.00
<i>⌘ Expenditures per kWh saved (\$/kWh):</i>	\$ 0.26	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>⌘ Expenditures per kW saved (\$/kW):</i>	\$ 6,209.48	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Utility discount rate (%):</i>	8.13										

⌘ Expenditures are reported on cumulative basis.

⌘ Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.

⌘ Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.

⌘ Please report spending related to 3rd tranche of MARR funding only. TRC calculations are not required for Smart Meters. Actual expenditures for the total third tranche period need to be reported.

⌘ Includes total for the reporting year, plus prior years, if any (for example, 2008 CDM Annual report for third tranche will include 2007, 2006, 2005 and 2004 numbers, if any).

⌘ Includes totals from Low Income programs that fall under both commercial and residential.