



## *Cornerstone Hydro Electric Concepts Association Inc.*

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**CHEC-RP-2004-0203/EB-2004-0502**

### **Conservation and Demand Management 2007 Annual Report**

#### **1.0 Introduction:**

This report summarizes the activity and successes of the Cornerstone Hydro Electric Concepts (CHEC) Group with respect to conservation and demand management undertaken in 2007. Included in this document are the sixteen (16) individual reports from the CHEC members that discuss their specific program activities and the associated insights of the members.

Consistent with CHEC members' cooperative effort to seek approval of their CDM plans as a combined group, the Annual Report reflects their commitment to work together to provide cost effective programs and to share and learn from each other's experience. In 2006 one LDC had exhausted their third tranche funding and continued to support the conservation effort by participating in the OPA programs. In 2007 five LDCs completed their third tranche expenditures with three others very close to completing their plans. Eight CHEC members requested extensions on their programs to facilitate completion of the plan.

The individual reports from each utility provides to the reader a better understanding of the activity and focus of each utility while this summary report provides an overview of the impact of this combined effort.

Within the 16 utilities there have been a total of 84 initiatives worked on in 2007. As in previous years the initiatives represent projects specific to individual LDCs and projects that are cooperative efforts between LDCs or agencies (local and OPA programs). While there were 84 initiatives included in the reporting many of the reports contained a number of separate activities joined in one Appendix B.

On the population of 84 initiatives, 37% had a positive TRC. Many initiatives continued to focus on education, studies to prepare customers for continued energy conservation and of course continuation of the partnerships that were started in the first years of the CDM program.

In 2007 the LDCs received additional funding through the OPA model. These additional funds combined with the third tranche funds maintained a high level of CDM activity across the province. In 2007 it was apparent that through the cooperative programs with the LDCs, the OPA gained recognition in the CDM market place. The availability of third tranche funds beyond September 2007

for some LDCs, allows the continuation of locally focused programs over and above the provincial initiatives.

This combined report, in addition to meeting the regulatory requirement, provides a comprehensive summary to CHEC members of the impact of their combined effort.

## 2.0 CHEC Members:

The 2007 Annual Report on Conservation and Demand Management Activities of the following utilities are included in this report:

Centre Wellington Hydro Ltd.	COLLUS Power Corp
Grand Valley Energy Inc.	Innisfil Hydro
Lakefront Utilities Inc.	Lakeland Power Distribution
Midland Power Utility Corp.	Orangeville Hydro Ltd
Orillia Power Distribution Corp.	Parry Sound Power
Rideau St. Lawrence	Wasaga Distribution Inc.
Wellington North Power Inc.	West Coast Huron Energy Inc.
Westario Power	Woodstock Hydro Services

Where a LDC had completed the program in 2007 their numbers are restated to maintain the completeness of the report.

## 3.0 Evaluation of the CDM Plan:

**Total Portfolio:** The 16 CHEC members collectively undertook a total of 84 initiatives. These programs fell within three categories:

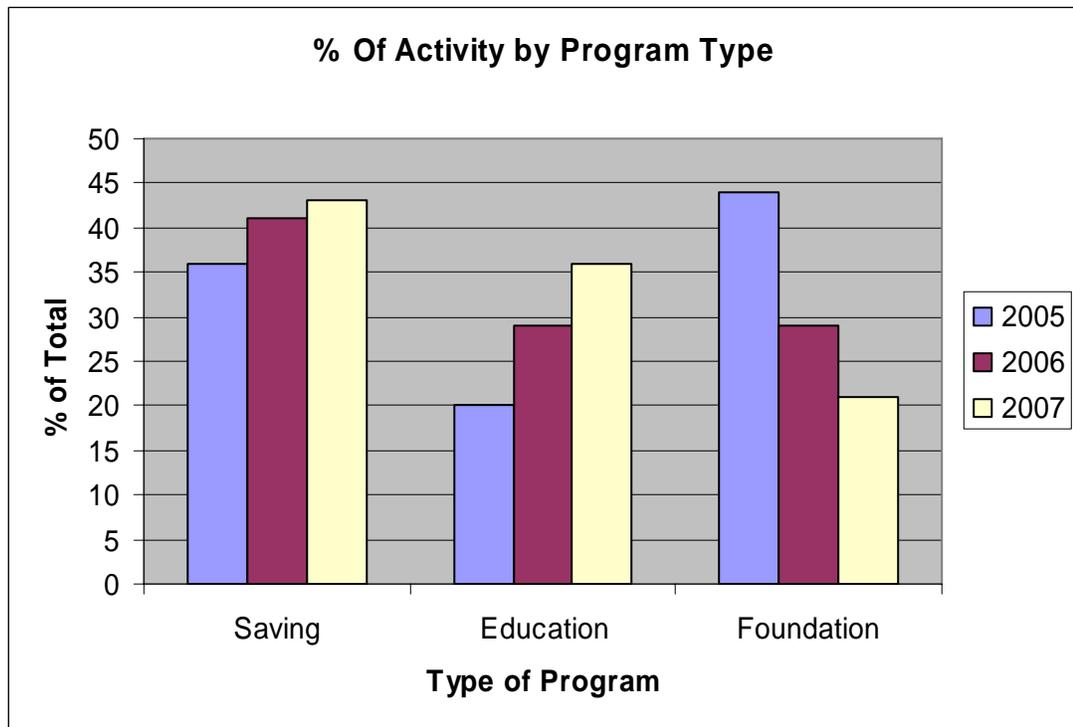
- Savings: Delivery of energy saving products or processes: coupons, rebates, free products, etc.
- Education: Providing general energy management information through such activities as: website development, workshops, brochures, school programs, etc,
- Foundation: Preparatory work for future programs that include: program research and development, energy audits, system studies, demonstration projects, partnerships, etc. In many instances the continuation of these programs were based on directions set in the first two years.

The 2007 initiatives represent a total energy savings (lifecycle) of 35,848,000 kWh at a combined “Utility Cost” of \$1,176,700 or approximately 3.2 c/kWh. This cost of energy saved was achieved while continuing the education and foundation building programs. To put the energy savings in perspective 35.8 Million kWh represents the annual energy required by 2,983 homes (at 1000 kWh/month).

Figure 1 illustrates the change in program makeup from 2005 to 2007. Over the three year period there has been a steady increase in the “saving” and “education” programs. This was offset by a steady decrease in the “foundation” programs. Many of the education programs also incorporated measures to assist participants in their conservation efforts.

The “Foundation” programs in the third year, in many instances, were completion of projects started in the first and second years. In other projects the initiative provides the consumer with specific information that will assist them to implement energy conservation strategies and more fully participate in future programs offered through the LDC/OPA delivery channel.

Figure 1



**Savings Programs:** The 2007 Annual Report does not contain any of the OPA program results run in 2007. The cumulative number however does contain the impact of OPA coupon programs in 2006. Hence for 2007 the programs which resulted in a net 2007 TRC were all locally driven.

On the local level savings programs continued to focus on local partnerships and delivery channels. This year a number of projects partnered with other community agencies such as social housing to contact customer groups that may not have the opportunity to be fully engaged by the conservation movement.

The use of product incentives and give-a-ways continued to play a significant role in the local programming. Conservation kits, CFL bulbs and other conservation devices were distributed to customers through: school programs, fund raisers, community events and as prizes. A number of utilities also partnered with the Porchlight Project to increase the number of CFL bulbs delivered in their service territory.

System optimization projects continue to be included in the portfolio. The savings by these initiatives can be substantial when compared to the incremental cost. Further initiatives in this area can continue to provide for reduced losses on the systems and the associated demand for energy.

**Education Programs:** The CHEC LDC's continued their support of the education portfolio and the School Boards in their service territories. Through presentations at schools, support of program development and partnering with delivery agents such as environmental groups, LDCs supported the grade 5 and 9 curriculum. The LDCs involvement helped support the teachers in their efforts and highlighted that conservation is an issue beyond the "academic" environment.

Members continued providing training opportunities to the commercial and industrial sector. A number of programs focused on the small commercial customer and provided conservation measures for installation. In this sector this appeared to be one of the best approaches. Industrial customers continue to be a challenge as it appeared to be difficult to get them to free up time and dollars for conservation. The workshops and materials provided by member LDCs will help to better prepare the customers for such programs as ERIP. However continued focus on this customer group, making efforts to understand and address their specific barriers to conservation will be required.

The education programs, while not focused on kWh savings set the stage for improved performance of programs more focused on savings. The education initiatives increase the level of conservation awareness and help to foster the conservation culture within the province.

**Foundation Program:** While the number of "foundation" programs were on a decline, as would be expected, they remain significant. In 2007 the "foundation" programs contained a number of audit initiatives to provide specific information to the customer for savings. While in many instances implementation has not occurred it is anticipated that a number of these will encourage participation in programs such as ERIP.

In 2007 the longer term "foundation" programs such as: system optimization studies, smart meter preparation, and demonstration projects were completed, consistent with the funding.

**Net TRC Results:** The net TRC result of the combined CHEC CDM activity for 2007 is \$882,739 down from \$3,800,000 in 2006 however up from \$500,000 in 2005. The TRC for the second year of the program was skewed by the EKC programs that were included in the 2006 Annual Report. The continued strong performance in the third year resulted from higher levels of activity of utilities with funds remaining and the inclusion of conservation measures in education programs. Education programs are an excellent way to support the theory with practical applications and implementation.

#### **4.0 Discussion of Programs:**

The individual program discussions from each utility are included in the following sections of this report. These discussions provide the individual utility perspective on the programs as offered in their service territory. The complete Annual CDM Report for each utility is included in the appendices.

#### **5.0 Lessons Learned:**

**Partnerships and Sharing:** In the 2006 report it was noted that the ability to partner was increased in year two. In year three the trend continued with a number of not-for-profit agencies entering into partnerships with CHEC members. These partnerships were community centered and in many cases very cost effective.

The availability of funds at the local level to support these initiatives increased the penetration of projects in the service territories. Continuation of funds at the local level (perhaps through custom programs) to ensure the continuation of the current momentum, should prove beneficial to the conservation movement and the conservation culture that has developed.

CHEC members continue to share information between members and also with other LDCs. Combined efforts for the purchase of product and resources continue to support the conservation efforts of CHEC.

**TRC:** TRC continues to be one of the primary measures of third tranche programs and the OEB Guideline has been key in the general understanding of total resource costing as applied to the electrical system. This understanding will continue as the OPA applies TRC to future programs. It is interesting to note that the values of measures under the OPA evaluation method are different from those in the OEB tool.

**Funding:** A number of CHEC members have extended the time line for third tranche funding. The extensions in many instances have been focused around industrial commercial funds that have not been fully utilized. The longer lead time for industry to respond and the introduction of OPA programs has impacted

on the expenditure of these funds. However the availability of the funds for a slightly longer period will provide opportunities for early 2008.

**Third Tranche and OPA Programs:** Third tranche CDM Programs were impacted by the OPA Programs introduced in 2006 and 2007. Programs such as the coupon program, ERIP and Peak Saver in many instances were very similar or extensions of programs developed with third tranche funds. As such LDCs stepped back and reevaluated their plans to adjust for the provincial initiative. By adjusting their programs LDCs ensured they were not duplicating efforts and were in fact investing third tranche funds in areas that were not being addressed by existing programs.

**Customer Readiness:** The residential customers have been responsive to programs over the three year period. Small surveys by members and anecdotal comments appear to indicate an increased awareness and readiness for electrical conservation – indicators of the development of the “conservation culture”.

As noted earlier the industrial and commercial customers continue to present a challenge. This sector appears to be aware of potential opportunities however lack the resources for evaluation and implementation of projects that do not appear focused to their core business. With the preparatory work over the last three years it is hoped that this customer sector is better prepared to move into implementation as the CDM industry continues with offerings that better meet their needs.

**Utility Resources:** Utility resources were challenged to meet the combined requirements of third tranche and OPA programs. In many instances the LDCs contracted internal resources or hired external consultants to assist with program management and delivery. It was found however that in many instances regular staff continues to play a critical role in setting the direction, reporting and monitoring the programs. The ability to manage these requirements as the industry moves forward continues to be an issue LDCs will need to address.

## **6.0 Conclusion:**

The third year of CDM continued to deliver information, kWh savings and the support to the conservation culture.

While third tranche funding is coming to an end the conservation and demand management momentum started by the LDC programs will continue through the current OPA/LDC funding mechanism. The third tranche funding allowed for local initiatives that not only provided kWh savings but provided education opportunities aimed at preparing customers for future savings.

## 7.0 Appendices:

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**CDM PLAN**

**ANNUAL REPORT**

**FOR THE YEAR ENDED DECEMBER 31, 2007**

**INTRODUCTION:**

Midland Power Utility Corporation (MPUC) is pleased to submit its Annual Report on the progress made in applying the third tranche (\$234,433) monies to conservation and demand management programs. Attached to this report is Appendix A – Evaluation of the CDM Plan, along with Appendix B – Discussion of the Program for the individual programs. MPUC has submitted its conservation and demand management plan with the CHEC Group and received a final order dated February 8, 2005 and an order dated August 2, 2006 reallocating funds approving spending. MPUC has also transferred less than 20% of the approved budget between programs.

**SUMMARY OF PROGRAMS:**

<b>Program</b>	<b>February 2005 Order</b>	<b>August 2006 Order</b>	<b>20% Cumulative Transfer - 2007</b>	<b>Program Budget Dec 31, 2007</b>
Customer Survey	\$ 1,000.00	\$ 1,000.00	\$ 185.26	\$ 1,185.26
Conservation Website	\$ 6,100.00	\$ 6,100.00	-\$ 1.61	\$ 6,098.39
Education/Promotion	\$ 12,333.00	\$ 12,333.00	\$ 2,079.14	\$ 14,412.14
Light Bulb Giveaway	\$ 0.00	\$ 25,000.00	-\$ 554.93	\$ 24,445.07
Partnership/Sponsorship	\$ 15,000.00	\$ 30,000.00	-\$ 2,952.41	\$ 27,047.59
System Optimization	\$ 65,000.00	\$112,800.00	\$ 1,160.95	\$113,960.95
Renewable Energy Study	\$ 40,000.00	\$ 2,200.00	-\$ 109.46	\$ 2,090.54
Smart Mtr/Pay-as-you-go	\$ 75,000.00	\$ 25,000.00	\$ 314.80	\$ 25,314.80
Signal/Str Lite Efficiency	\$ 20,000.00	\$ 20,000.00	-\$ 121.75	\$ 19,978.25
<b>TOTALS</b>	<b>\$234,433.00</b>	<b>\$234,433.00</b>	<b>\$ 00.00</b>	<b>\$234,433.00</b>

In 2005, MPUC transferred \$25,000 to the Light Bulb Giveaway Program through the 20% cumulative transfer provision in accordance with the Order of the OEB in February 2005. This transfer, coupled with the 2006 transfers above of \$3,740.16 represents a 12% cumulative fund transfer between programs. Based on the above program budgets, MPUC has incurred the following expenses:

**SUMMARY OF EXPENDITURES PER YEAR VS. BUDGET**

<b>Program</b>	<b>Program Budget</b>	<b>2005 Expenditures</b>	<b>2006 Expenditures</b>	<b>2007 Expenditures</b>
Customer Survey	\$ 1,185.26	\$ 23.09	\$ 1,162.17	\$ 00.00
Conservation Website	\$ 6,098.39	\$ 2,924.35	\$ 3,174.04	\$ 00.00
Education/Promotion	\$ 14,412.14	\$ 6,098.90	\$ 1,151.13	\$ 7,162.11
Light Bulb Giveaway	\$ 24,445.07	\$ 24,445.07	\$ 00.00	\$ 00.00
Partnership/Sponsorship	\$ 27,047.59	\$ 2,006.95	\$ 25,040.64	\$ 00.00
System Optimization	\$113,960.95	\$ 17,050.83	\$ 95,739.52	\$ 1,170.60
Renewable Energy Study	\$ 2,090.54	\$ 2,090.54	\$ 00.00	\$ 00.00
Smart Mtr/Pay-as-you-go	\$ 25,314.80	\$ 6,691.43	\$ 18,623.37	\$ 00.00
Signal/Str Lite Efficiency	\$ 19,978.25	\$ 11,039.39	\$ 7,603.34	\$ 1,235.52
<b>TOTALS</b>	<b>\$234,433.00</b>	<b>\$ 72,370.55</b>	<b>\$152,494.22</b>	<b>\$ 9,568.23</b>

**DISCUSSION OF PROGRAMS:**

**#1. NAME OF PROGRAM: CUSTOMER SURVEY**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

The intent of this program is to create an active conservation culture. Engaging the community as a whole and fostering the conservation culture through its infancy are the expected yield from the program. Using economies of scale the survey costs are shared with other members of the CHEC group and the increased buying power of the group will leverage more value to customers and shareholders.

The importance of customer feedback and opinion cannot be underestimated. The CHEC Group seized the opportunity of combining resources to produce one uniform survey which greatly reduced costs and increases the depth and validity of the survey findings.

Survey success is often limited due to the rather small sample of potential customers, however, the joint survey efforts of our group will maximize the value of the survey and provide the necessary background and baseline information to enable member LDCs to make better decisions on program design and targeting funds to programs of customer value. These surveys may also be used to establish baselines for assessment of future program impacts.

<b>TOTAL PROGRAM BUDGET per Order Feb 2005:</b>	<b>\$1,000.00</b>
<b>Transfer From Education &amp; Promotion Dec 2006</b>	<b><u>\$ 185.26</u></b>
<b>TOTAL PROGRAM BUDGET</b>	<b>\$1,185.26</b>

**COSTS INCURRED**

<b>Per RRR submitted to OEB Jan 31/06</b>	<b>\$23.51</b>	
<b>Additional Year End Adjustments</b>	<b><u>( .42)</u></b>	
<b>Balance At December 31, 2005:</b>		<b>\$ 23.09</b>

<b>Expenditures 2006</b>	<b><u>\$1,162.17</u></b>
<b>Per RRR submitted to OEB Jan/07</b>	<b><u>\$1,185.26</u></b>

<b>TOTAL PROGRAM COST:</b>	<b>\$1,185.26</b>
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**PROJECT COMPLETED December, 2006**

**#2. NAME OF PROGRAM: WEBSITE**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

The intent of this program is to create an active conservation culture. Engaging the community as a whole and fostering the conservation culture through its infancy are the expected yield from the program. Using economies of scale the website costs are shared with other members of the CHEC group and the increased buying power of the group will leverage more value to customers and shareholders.

A conservation website is a significant avenue of opportunity to educate, inform, advertise and reach out to energy consumers. Development and maintenance costs would be shared as would contribution requirements resulting in a more robust and interactive website. This website would also be linked to MPUC's main website which would be enhanced by the availability of the combined resources. Components of the website would range from energy savings concepts to various industries and load profile services.

Savings could be measured on up-take of programs, message penetration analysis and reports on the number of hits and website traffic.

<b>PROGRAM BUDGET per Order Feb 2005:</b>	<b>\$6,100.00</b>
<b>Transfer to Education &amp; Promotion</b>	<b><u>\$ 1.61</u></b>
<b>TOTAL PROGRAM BUDGET</b>	<b>\$6,098.39</b>



**COSTS INCURRED**

**Expenditures - 2005**

Per RRR submitted to OEB Jan 31/06	\$6,104.09	
Additional Year End Adjustments	<u>( 5.19)</u>	
Balance At December 31, 2005:		\$ 6,098.90

**Expenditures - 2006**

Per RRR submitted to OEB Jan/07		\$ 1,151.13
		\$ 7,250.03

**Expenditures – 2007**

Per RRR Submitted to OEB Jan 31/07		\$ 7,162.11
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<b>TOTAL PROGRAM BUDGET</b>		<b><u>\$14,412.11</u></b>
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**PROJECT COMPLETED August, 2007**

**#4. NAME OF PROGRAM: Lightbulb Giveaway**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

Compact Fluorescent Lamps (CFLs) have for the past 15 years been proven energy saving devices over their conventional incandescent light bulbs. This is a residential consumer and small business program targeting increased awareness and use of CFLs in this market. CFLs achieve up to 75% electricity savings over conventional incandescent bulbs and last up to 10 times longer. If used in applications where light is required a minimum of 4 hours per day or more typical paybacks range from .7 to 3 years.

Program design will include lamp specifications, procurement, distributions, etc. Key considerations include lamp selection to ensure light quality and life expectancy is achieved.

<b>TOTAL PROGRAM BUDGET : transferred from Smart Metering</b>		<b>\$25,000.00</b>
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**COSTS INCURRED**

Per RRR submitted to OEB Jan 31/06	\$24,515.63	
Additional Year End Adjustments	<u>( 70.56)</u>	
At December 31, 2005:		\$24,445.07

**PROJECT COMPLETED December, 2005**

**#5. NAME OF PROGRAM: Partnership/Sponsorship Programs**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

The intent of this program is to create special programs for low-income families provided through strategic partnerships. Because electricity prices have the potential to impact on low-income consumers the most, special consideration must be contemplated for this group. Working with local community organizations, programs will be identified and developed to provide needed information and services to this group so that they can take actions that will have the most desirable outcome for them. Because community organizations already know the needs of this group, it is envisioned that these programs would be delivered through these organizations, with support by the LDCs.

Program #1: Delivery of 530 CFL lightbulbs to the Social Housing Services Corporation for installation in the low income housing in the Midland community. The costs of this program have been combined with the Lightbulb Give Away Program

Program #2: MPUC partnered with the Wye Marsh Wildlife Centre to support the construction of a wind turbine project which would be used as an educational tool in renewable energy and the creation of a conservation culture.

<b>TOTAL PROGRAM BUDGET per Order Feb 05:</b>	<b>\$15,000.00</b>
<b>Transfer Per Order August 2, 2006</b>	<b><u>\$15,000.00</u></b>
<b>PROGRAM BUDGET 2006</b>	<b><u>\$30,000.00</u></b>
<b>TRANSFERRED TO EDUCATION AND PROMOTION</b>	<b><u>\$ 2,952.41</u></b>
<b>TOTAL PROGRAM BUDGET:</b>	<b>\$27,047.59</b>

**COSTS INCURRED**

**Expenditures - 2005**

<b>Per RRR submitted to OEB Jan 31/06</b>	<b>\$ 1,953.26</b>	
<b>Additional Year End Adjustments</b>	<b><u>53.69</u></b>	
<b>At December 31, 2005:</b>		<b>\$ 2,006.95</b>

<b>Expenditures 2006</b>		<b><u>\$25,040.64</u></b>
<b>Per RRR submitted to OEB Jan/07</b>		<b>\$27,047.59</b>

**PROJECT COMPLETED December, 2006**

**#6. NAME OF PROGRAM: System Optimization & Implementation**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

The intent of this program is to target reductions in distribution system losses. The overall benefits of this program will be to identify and implement projects that will improve/reduce distribution system losses and improve system efficiency. Supporting corrective action either by taking direct control over an upgrade or support customer action will result in system demand reductions and relieve network capacity, on both a local and system wide basis.

**Program #1: Transformer and other loss reductions: Infrared Study**

Through non-invasive investigations, this initiative will identify overloaded equipment and investigate operational and equipment improvement opportunities. This study will also investigate the integrity of the overhead and underground distribution systems for areas of hot spots which once repaired, will reduce line losses and improve system reliability. This study will also investigate transformers owned by MPUC's large customers to identify overloaded equipment for customer improvement opportunities.

**Program #2: Line Loss Reductions: System Optimization Study & Phase Balancing**

This study will investigate and identify the benefits of optimizing the distribution system. It will indicate areas of losses resulting from undersized conductors and undersized transformers. It will further indicate where improvements may be made to the system through the implementation of proper feeder balancing. The study will recommend system changes which will improve line losses and system reliability. As a result of this study MPUC determined that the reconstruction of the 23 pole span of the 98-M4 main subtransmission feeder would provide for significant savings by installing an upgraded conductor. The cost of the upgraded conductor was \$158,000 and after completion of the TRC model MPUC determined that the savings would substantiate the increased expense.

**Program #3: Voltage Conversion Substation Upgrade**

This study will investigate the benefits of increasing the distribution system voltage which will result in lower line losses, and may result in the elimination of either one or two of the existing municipal substations. Due to the high density of MPUC's service area, this study concluded that the voltage conversion of the existing 4.16kv system would not offset the high cost of conversion.

**Program #4: Substation Study**

This study will investigate the existing condition of the municipal substations and provide a report on applicable upgrades to the substations to maximize system reliability. In addition, this study has investigated the effect of high efficiency transformers over low efficiency transformers.

**Program #5: Load Data Study**

This study will satisfy the OEB requirement for an LDC-specific load shape analysis using the generic load shapes (residential and general service) as identified by the Province-wide group which included sampling design, customer selection and load shape analysis.

<b>CDM PROGRAM BUDGET per Order Feb 2005</b>		<b>\$ 65,000.00</b>
<b>Transfer Per Order August 2, 2006</b>		<b><u>\$ 47,800.00</u></b>
<b>PROGRAM BUDGET</b>		<b>\$112,800.00</b>
<b>TRANSFER TO EDUCATION AND PROMOTION</b>		<b><u>\$ 9.65</u></b>
<b>TOTAL PROGRAM BUDGET</b>		<b>\$112,790.35</b>

**COSTS INCURRED**

**Expenditures - 2005**

<b>Per RRR submitted to OEB Jan 31/06</b>	<b>\$17,078.20</b>	
<b>Additional Year End Adjustments</b>	<b><u>( 27.37)</u></b>	
<b>At December 31, 2005:</b>		<b>\$ 17,050.83</b>

<b>Expenditures – 2006</b>		<b>\$ 95,739.52</b>
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<b>Allocation between programs in 2007</b>		<b><u>\$ 1,170.60</u></b>
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<b>TOTAL PROGRAM EXPENSES</b>		<b>\$113,960.95</b>
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**PROJECT COMPLETED** August, 2007

**#7. NAME OF PROGRAM: Renewable Energy Study**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

A study or studies will be conducted to identify and determine the feasibility of one or more local renewable energy projects. Midland's territory and customers present opportunities which will be canvassed for a first pass of possible implementation.

Program #1: Wind Study

Investigation of the concept this renewable energy source will be conducted to determine what applications can be successfully implemented in Midland. Renewable energy sources, and in particular wind power is a central focus in the supply diversity of the Ontario Government. Investigations will be conducted to determine appropriate areas where this concept can be promoted where they fit local demographic needs. Local schools will also be contacted to determine if the development of wind studies can be integrated with their program of science studies. Partnerships will be investigated to determine if a program can be designed to enhance the educational aspect of this energy source.

<b>TOTAL PROGRAM BUDGET per Order Feb 2005:</b>		<b>\$ 40,000.00</b>
<b>Transfer Per Order August 2, 2006</b>		<b><u>\$-37,800.00</u></b>
<b>PROGRAM BUDGET</b>		<b>\$ 2,200.00</b>
<b>TRANSFER TO EDUCATION AND PROMOTION</b>		<b><u>\$ - 109.46</u></b>
<b>TOTAL PROGRAM COST</b>		<b>\$ 2,090.54</b>

**COSTS INCURRED**

<b>Per RRR submitted to OEB Jan 31/06</b>	<b>\$2,107.38</b>	
<b>Additional Year End Adjustments</b>	<b><u>( 16.84)</u></b>	
<b>At December 31, 2005:</b>		<b>\$ 2,090.54</b>

**PROJECT COMPLETED** December, 2006

**#8. NAME OF PROGRAM: Smart Metering**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

Pilot studies will be conducted to investigate applicability and optimum introduction of smart meters. Steps are to include the ongoing evaluation of technologies appropriate for retrofit applications including, literature and product reviews, meetings, technical and economic assessment along with the development of the plan.

Midland, along with other members of the CHEC group have joined the OUSM group, who have coordinated the multiple technologies. This will provide Midland with the ability to gain access to documented test results from a variety of vendors that were all tested using exactly the same testing process. This has provided economies of scale as ultimately all LDCs will need to compare and spend time separating the claims of vendors from the actual services and deliverables they can provide. The ability to share information and questions with other members of the group provide additional benefits in the implementation planning as well as customer education and systems integration issues. This investigation and testing of system has provided Midland with appropriate information to purchase meters that can be used with smart metering technology, but in the interim have allowed MPUC to investigate various technologies and products to become familiar with the smart metering infrastructure. These meters, although can be used for smart metering infrastructure have allowed replacement initiatives to be put in place thereby avoiding stranded assets.

<b>TOTAL PROGRAM BUDGET per Order Feb 2005:</b>	<b>\$75,000.00</b>
<b>Transfer per Order August 2, 2006</b>	<b><u>-\$50,000.00</u></b>
<b>PROGRAM BUDGET</b>	<b>\$25,000.00</b>
<b>TRANSFERRED FROM EDUCATION AND PROMOTION</b>	<b><u>\$ 314.80</u></b>
<b>TOTAL PROGRAM BUDGET</b>	<b>\$25,314.80</b>

**COSTS INCURRED**

**EXPENDITURES – 2005**

<b>Per RRR submitted to OEB Jan 31/06</b>	<b>\$ 6,613.82</b>	
<b>Additional Year End Adjustments</b>	<b><u>77.61</u></b>	
<b>At December 31, 2005:</b>		<b>\$ 6,691.43</b>

**EXPENDITURES – 2006**

<b>Per RRR submitted to OEB Jan/07</b>	<b><u>\$18,623.37</u></b>
<b>TOTAL PROGRAM COSTS</b>	<b>\$25,314.80</b>

**PROJECT COMPLETED: December, 2006**

**#9. NAME OF PROGRAM: Street Lights**

**DESCRIPTION OF PROGRAM:(intent, design, delivery, partnerships and evaluation)**

Throughout our local municipality street lights will be changed from 200 watt incandescent bulbs to 70 and 100 watt high pressure sodium fixtures as part of the energy conservation program with the Town of Midland. Anticipated results will include savings in consumption over conventional lights and savings in maintenance costs as the life expectancy of the new bulbs is 8-10 times that of conventional lights. Activities for the project include surveying the municipality about their use of and opinions about lighting, concise and objective information and tools for decision makers about product performance, energy and economics, purchasing of new lighting, and the installation of the new lights.

<b>TOTAL PROGRAM BUDGET - per Order Feb 2005:</b>	<b>\$20,000.00</b>
<b>Reallocation between programs</b>	<b><u>\$ -121.75</u></b>
<b>TOTAL PROGRAM</b>	<b>\$19,978.75</b>

**COSTS INCURRED**

**EXPENDITURES - 2005**

<b>Per RRR submitted to OEB Jan 31/06</b>	<b>\$11,047.74</b>	
<b>Additional Year End Adjustments</b>	<b><u>( 8.35)</u></b>	
<b>At December 31, 2005:</b>		<b>\$11,039.39</b>

**EXPENDITURES – 2006**

**Per RRR submitted to OEB Jan/07** **\$ 7,603.34**

**EXPENDITURES – 2007** **\$ 1,235.52**

**TOTAL PROGRAM BUDGET** **\$19,878.25**

**PROJECT COMPLETED: August, 2007**

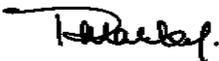
## EVALUATION OF CDM PLAN:

See attached Appendix "B" for each program above-noted and Appendix "A" an Evaluation of the overall CDM Plan.

## LESSONS LEARNED/CONCLUSIONS/ GENERAL COMMENTS:

1. Administration and coordination of programs and the supply of reporting documentation costs have been allocated to all programs on a prorata sharing, based on the gross amount allocated to each program in the year. MPUC believes that more administrative type costing will be incurred on larger programs. Once the program has been completed no future administration costs will be allocated to the program.
2. For the year 2005, the net TRC is a positive value of \$114,000, mainly due to the delivery of the lightbulb program. In 2006, the net TRC is a positive value of \$271,863 for a cumulative positive TRC of \$394,859. In 2007, the net TRC is a negative value of \$5935. The majority of programs delivered through the third tranche spending in 2006 and 2007 were investigations/studies and educational/promotional programs and consequently, would not have any kwh savings attributed to their actual program. However, it is expected that though these programs the conservation culture will be fostered thereby generating the savings that are not measured. MPUC participated in the OPA coupon programs in the fall and spring of 2006 which accounts for the increase in the net TRC values for 2006.
3. Overall expenditures per kWh saved is \$0.02 which is low. Midland Power has initiated over 15,000 contacts with users of electricity in the Town of Midland. We will continue to foster a conservation culture as we participate in programs in the future.
4. MPUC partnered with the Wye Marsh Wildlife Conservation group to construct a wind turbine at the Wye Marsh. This turbine will be used as an educational tool for schools and the general public. This partnerships build on the conservation education with the residents of Midland.
5. As smart metering implementation becomes reality, MPUC believes that the combined focus of the UtilAssist OUSM Group has provided great economies of scale for smaller LDCs. Through this group we are able to test various technologies and develop standards as a group as opposed to "going it alone".
6. The 98-M4 Reconditioning (system optimization) project was completed in 2006. MPUC total costs for the incremental upgrade were \$158,000 of which \$60,000 was allocated from the 3<sup>rd</sup> Tranche CDM monies (\$58,600 in 2006 and \$1200 in 2007)
7. All Programs were completed by August, 2007.

Respectfully Submitted,



Phil Marley, CMA  
President & CEO  
MIDLAND POWER UTILITY CORPORATION

## Appendix A - Evaluation of the CDM Plan

Highlighted boxes are to be completed manually, white boxes are linked to Appendix C and will be brought forward automatically.

	<sup>5</sup> Cumulative Totals Life-to-date	Total for 2007	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	384,893.72	(5,935.85)	\$ (7,162)	\$ -	\$ 1,226	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Benefit to cost ratio:</i>	2.22	0.20	0.00	0.00	6.21	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>	15,890	5	0	0	4	0	0	1		0	0
<i>Lifecycle (kWh) Savings:</i>	13,300,401.78	36,480	0	0	36,480	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	1,699,368.43	1,824	0	0	1,824	0	0	0		0	0
<i>Total peak demand saved (kW):</i>		2	2	0	0	0	0	0		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.245%	0.001%	0.000%	0%	0.159%	0%	0%	0%		0%	0%
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.006%	0.005%	0%	0.001%	0%	0%	0%		0%	0%
<sup>1</sup> <i>Report Year Gross C&amp;DM expenditures (\$):</i>	234,433.05	\$ 9,568	\$ 7,162	\$ -	\$ 1,236	\$ -	\$ -	\$ 1,171	\$ -	\$ -	\$ -
<sup>2</sup> <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.02	\$ 0.26	\$ -	\$ -	\$ 0.03	\$ -	\$ -	\$ -		\$ -	\$ -
<sup>3</sup> <i>Expenditures per kW saved (\$/kW):</i>		\$ 4,107.59	\$ 3,743.13	\$ -	\$ 2,970.00	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Utility discount rate (%):</i>	6.9										

<sup>1</sup> Expenditures are reported on accrual basis.

<sup>2</sup> Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.

<sup>3</sup> Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.

<sup>4</sup> Please report spending related to 3rd tranche of MARR funding only. TRC calculations are not required for Smart Meters. Only actual expenditures for the year need to be reported.

<sup>5</sup> Includes total for the reporting year, plus prior year, if any (for example, 2006 CDM Annual report for third tranche will include 2005 and 2004 numbers, if any).

# Appendix C - Program and Portfolio Totals

Report Year: 2007

## 1. Residential Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle	Total Peak	Report Year
	(PV)	TRC Costs (PV)			Total kWh Saved			
Customer Survey	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Conservation Website	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Education and Promotion	\$ -	\$ 7,162	\$ 7,162	0.00	0	0	0	\$ 7,162
LightBulb Giveaway	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Partnership/Sponsorships	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Spring Every Kilowatt Counts (EKC) P	\$ -	\$ -	\$ -	0.00	0	0	2	\$ -
Fall Every Kilowatt Counts (EKC) Pro	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B - Residential</b>	\$ -	\$ 7,162	\$ 7,162	0.00	0	0	2	\$ 7,162
Residential Indirect Costs not attributable to any specific program	\$ -				Total Residential kWh Delivered in 2007 47886438			
<b>Total Residential TRC Costs</b>		\$ 7,162			System 2007 Peak		37,346	
<b>**Totals TRC - Residential</b>	\$ -	\$ 7,162	\$ 7,162	0.00				

## 2. Commercial Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle	Total Peak	Report Year
	(PV)	TRC Costs (PV)			Total kWh Saved			
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Commercial Indirect Costs not attributable to any specific program	\$ -				Total Commercial kWh Delivered in 2007			
<b>Total TRC Costs</b>		\$ -			System 2007 Peak		37,346	
<b>**Totals TRC - Commercial</b>	\$ -	\$ -	\$ -	0.00				

## 3. Institutional Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle	Total Peak	Report Year
	(PV)	TRC Costs (PV)			Total kWh Saved			
Street Light Conversion	\$ 1,462	\$ 236	\$ 1,226	6.21	1,824	36,480	0	\$ 1,236
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	\$ 1,462	\$ 236	\$ 1,226	6.21	1,824	36,480	0	\$ 1,236
Institutional Indirect Costs not attributable to any specific program	\$ -				Total Institutional kWh Delivered in 2007		1,146,938.00	
<b>Total TRC Costs</b>		\$ 236			System 2007 Peak		37,346	
<b>**Totals TRC - Institutional</b>	\$ 1,462	\$ 236	\$ 1,226	6.21				

#### 4. Industrial Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)						
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B -	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Industrial Indirect Costs not attributable to any specific program					Total Industrial kWh Delivered in 2007			
Total TRC Costs		\$ -			System 2007 Peak		37,346	
**Totals TRC - Industrial	\$ -	\$ -	\$ -	0.00				

#### 5. Agricultural Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)						
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B -	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Agricultural Indirect Costs not attributable to any specific program					Total Agricultural kWh Delivered in 2007			
Total TRC Costs		\$ -			System 2007 Peak		37,346	
**Totals TRC - Agricultural	\$ -	\$ -	\$ -	0.00				

#### 6. LDC System Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)						
98-M4 Reconductoring - System Opti	\$ -	\$ -	\$ -	0.00	0	0	0	\$ 1,171
System Optimization Studies	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Renewable Energy Study	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B -	\$ -	\$ -	\$ -	0.00	0	0	0	\$ 1,171
LDC System Indirect Costs not attributable to any specific program					Total Losses kWh Delivered in 2007			
Total TRC Costs		\$ -			System 2007 Peak		37,346	
**Totals TRC - LDC System	\$ -	\$ -	\$ -	0.00				

#### 7. Smart Meters Program

Only spending information that was authorized under the 3rd tranche of MARR is required to be reported for Smart Meters.

Report Year Gross C&DM Expenditures (\$) →

### 8. Other #1 Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B -	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Other #1 Indirect Costs not attributable to any specific program →					Total Other kWh Delivered in 2007			
Total TRC Costs		\$ -			System 2007 Peak		37,346	
**Totals TRC - Other #1	\$ -	\$ -	\$ -	0.00				

### 9. Other #2 Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B -	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Other #2 Indirect Costs not attributable to any specific program →					Total Other kWh Delivered in 2007			
Total TRC Costs		\$ -			System 2007 Peak		37,346	
**Totals TRC - Other #2	\$ -	\$ -	\$ -	0.00				

### LDC's CDM PORTFOLIO TOTALS

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
*TOTALS FOR ALL APPENDIX B	\$ 1,462	\$ 7,398	\$ 5,936	0.20	\$ 1,824	\$ 36,480	\$ 2	\$ 9,568
Any other Indirect Costs not attributable to any specific program →					Total kWh Delivered in 2007		224,566,924.00	
TOTAL ALL LDC COSTS		\$ 7,398			System 2007 Peak		37,346	
**LDC' PORTFOLIO TRC	\$ 1,462	\$ 7,398	\$ 5,936	0.20				
					Total kWh Delivered 05/06		468,232,501.00	

\* The savings and spending information from this row is to be carried forward to Appendix A.

\*\* The TRC information from this row is to be carried forward to Appendix A.

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Education and Promotion

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

Using economies of scale some costs are shared with other LDCs and other partners, the increased buying power of the group will leverage more value. Advancing the importance of conservation in all market sectors and in turn facilitating the programs to permit acting on the energy saving opportunities requires significant and consistent marketing.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	0		
Number of participants or units delivered:	0.00		
Measure life (years):	0.00		
Number of participants/units 05&06			
Number of Participants or units delivered life-to-date	0.00		

<b>TRC Results:</b>	<b>Reporting Year</b>	<b>Total 05&amp;06 TRC Results</b>	<b>Life-to-date TRC Results:</b>
B. <sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):	\$ 7,162.11	\$ 7,250.03	\$ 14,412.14
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ 7,162.11	\$ 7,250.03	\$ 14,412.14
<b>Net TRC (in year CDN \$):</b>	<b>\$ (7,162.11)</b>	<b>-\$ 7,250.03</b>	<b>\$ (14,412.14)</b>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	\$ -	\$ -

C. **Results:** (one or more category may apply)

**Cumulative Results:**

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
	Winter	0.00	0.00	
Energy saved (kWh):		<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>
		0.00	0.00	0
				<i>Cumulative Annual Savings</i>
			<i>Total 05&amp;06 Lifecycle</i>	<i>05&amp;06 Annual</i>
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

Energy savngs (kWh):  lifecycle  in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

D. Program Costs*:		Reporting Year	Total 05&06 Costs	Cumulative Life to Date
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
<i>Includes Measure's Cost - ensure full cost of measure entered in TRCIL15</i>				
	Incremental O&M:	\$ 7,162.11	\$ 7,250.03	\$ 14,412.14
	Incentive:	\$ -		\$ -
	Total:	\$ 7,162.11	\$ 7,250.03	\$ 14,412.14
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ 7,162.11	\$ 7,250.03	\$ 14,412.14

**E. Assumptions & Comments:**

2007 programs included the purchase of conservation ktis and a teach the teacher program through the Simcoe County District School Board

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the numebr of units times the net present value per unit b

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made



Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

lifecycle in year

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

<b>D. Program Costs*:</b>		<b>Reporting Year</b>	<b>Total 05&amp;06 Costs</b>	<b>Cumulative Life to Date</b>
Utility direct costs (\$): Includes Measure's Cost - ensure full cost of measure entered in TRC:IL15	Incremental capital:	\$ -		\$ -
	Incremental O&M: Incentive:	\$ 1,235.52 \$ -	\$ 18,642.79	\$ 19,878.31 \$ -
	Total:	\$ 1,235.52	\$ 18,642.79	\$ 19,878.31
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ 1,235.52	18,642.79	19,878.31

**E. Assumptions & Comments:**

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit b

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Customer Survey

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

The intent of this program is to create an active conservation culture. Engaging the community as a whole and fostering the conservation culture through its infancy are the expected yield from the program. Using economies of scale the survey costs are shared with other members of the CHEC group and the increased buying power of the group will leverage more value.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered:			
Measure life (years):	0.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	0.00		

B. <b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
		Results	Results:
<sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):		\$ 1,248.86	\$ 1,248.86
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ -	\$ 1,248.86	\$ 1,248.86
Net TRC (in year CDN \$):	\$ -	-\$ 1,248.86	-\$ 1,248.86
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	\$ -	\$ -

C. **Results:** (one or more category may apply) **Cumulative Results:**

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
			0.00	
Energy saved (kWh):	Winter	0.00	Cumulative Lifecycle	Cumulative Annual Savings
				lifecycle
			2005 Lifecycle	2005 Annual
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):	
Distribution system power factor at beginning of year (%):	

Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

*lifecycle* *in year*

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>2005/2006 Costs</u>	<u>Cumulative Life to Date</u>
<b>D. Program Costs*:</b>				
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	Incremental O&M:		\$ 1,185.26	\$ 1,185.26
	Incentive:			\$ -
	Total:	\$ -	\$ 1,185.26	\$ 1,185.26
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ -	\$ 1,185.26	\$ 1,185.26

**E. Assumptions & Comments:**

The importance of customer feedback and opinion cannot be underestimated. The CHEC Group seized the opportunity of combining resources to produce one uniform survey which greatly reduced costs and increases the depth and validity of the survey findings. The joint efforts of CHEC will maximize the value of the survey and provide the necessary background and baseline information to enable the LDCs to make better decisions on program design and targeting funds to programs of customer value.

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit b

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Conservation Website

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

The intent of this program is to create an active conservation culture. Using economies of scale the website costs are shared with other members of the CHEC group and the increased buying power of the group will leverage more value to customers and shareholders. Website development on Midland's site was completed in 2005. The CHEC website was completed in 2006

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered:			
Measure life (years):	0.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	0.00		

<b>TRC Results:</b>		<b>Reporting Year</b>	<b>2005/2006 TRC Results</b>	<b>Life-to-date TRC Results:</b>
B. <sup>1</sup> TRC Benefits (\$):		\$ -	\$ -	\$ -
<sup>2</sup> TRC Costs (\$):				
	Utility program cost (less incentives):	\$ -	\$ 6,486.35	\$ 6,486.35
	Incremental Measure Costs (Equipment Costs)	\$ -	\$ -	\$ -
	<b>Total TRC costs:</b>	\$ -	\$ 6,486.35	\$ 6,486.35
	<b>Net TRC (in year CDN \$):</b>	\$ -	-\$ 6,486.35	-\$ 6,486.35
	Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	\$ -	\$ -

C. **Results:** (one or more category may apply) **Cumulative Results:**

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
			0.00	
	Winter		Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	lifecycle	0.00	0	0
		in year	2005 Lifecycle	2005 Annual
Other resources saved :				
	Natural Gas (m3):	0		
	Water (l)	0		

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):	
Distribution system power factor at beginning of year (%):	

Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

*lifecycle* *in year*

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>2005/2006 Costs</u>	<u>Cumulative Life to Date</u>
<b>D. Program Costs*:</b>				
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	Incremental O&M:	\$ -	\$ 5,948.14	\$ 5,948.14
	Incentive:	\$ -		\$ -
	<b>Total:</b>	\$ -	\$ 5,948.14	\$ 5,948.14
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -	\$ 150.25	\$ 150.25
	<b>Total:</b>	\$ -	\$ 150.25	\$ 150.25
<b>Total Utility Cost of Program</b>		\$ -	\$ 6,098.39	\$ 6,098.39

**E. Assumptions & Comments:**

A conservation website is a significant avenue of opportunity to educate, inform, advertise and reach out to energy consumers. Development and maintenance costs would be shared as would contribution requirements resulting in a more robust and interactive website. The CHEC website would be linked to MPUC's website which would be enhanced by the availability of the combined resources.

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit b

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** LightBulb Giveaway

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

Compact CFLs were delivered to all Residential and GS<50kW customers along with the Ministry of Energy Conserve and Save Money brochure. MPUC also provided CFLs to low income housing customers.

**Measure(s):**

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
<i>Base case technology:</i>	60W Incandescent	60 W Incandescent				
<i>Efficient technology:</i>	15W CFL	15 W CFL				
<i>Number of participants or units delivered:</i>	0.00	0.00	0.00	0.00	0.00	0.00
<i>Measure life (years):</i>	4.31	2.00	0.00	0.00	0.00	0.00
<i>Number of participants or units 2005</i>	6300	700				
<i>Number of Participants or units delivered life-to-date</i>	6,300.00	700.00	0.00	0.00	0.00	0.00

**TRC Results:**

	Reporting Year	2005 TRC Results	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ -	\$ 164,313.55	\$ 164,313.55
<sup>2</sup> Measure's Costs (\$):			
<i>Utility program cost (less incentives):</i>	\$ -	\$ 25,414.51	\$ 25,414.51
<i>Participant cost:</i>	\$ -		\$ -
<i>Total TRC costs:</i>	\$ -	\$ 25,414.51	\$ 25,414.51
<b>Net TRC (in year CDN \$):</b>	\$0.00	\$ 138,899.04	\$ 138,899.04
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	#DIV/0!	\$ 6.47	\$ 6.47

C. **Results:** (one or more category may apply)

**Conservation Programs:**

			Cumulative Results:	
<i>Demand savings (kW):</i>	Summer	0.00	Report Summer Demand (kW)	
	Winter	0.00	0.00	
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
	0.00	0.00	2778300	705348
			2005 Lifecycle	2005 Annual
			2,778,300.00	705,348.00
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>	0	0		
<i>Water (l)</i>	0	0		

**Demand Management Programs:**



# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Partnership/Sponsorships

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

Special programs will be developed for low-income families and other organizations through strategic partnerships. Working with these groups programs will be developed to provide resources and services to the groups. A partnership with the Wye Marsh Wildlife Centre for the construction of a wind turbine to be used for educational purposes with local schools and the general public will add to the conservation culture

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	0		
Number of participants or units delivered:	0.00		
Measure life (years):	0.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	0.00		

B. <b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
		Results	Results:
<sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):	\$ -	\$ 26,718.64	\$ 26,718.64
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ -	\$ 26,718.64	\$ 26,718.64
<b>Net TRC (in year CDN \$):</b>	\$ -	-\$ 26,718.64	-\$ 26,718.64
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	#DIV/0!	\$ -	\$ -

C. **Results:** (one or more category may apply) **Cumulative Results:**

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
	Winter	0.00	0.00	
Energy saved (kWh):		<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>
		0.00	0.00	0
				<i>Cumulative Annual Savings</i>
				0
			<i>2005 Lifecycle</i>	<i>2005 Annual</i>
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):	
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# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** 98-M4 Reconductoring - System Optimization

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

Reconstruction of 23 pole span of the 98-M4 main subtransmission feeder. Total project cost of \$335,000. Incremental cost of installing the up-graded conductor was \$158,000 as per the contractor's estimate. Loss savings as calculated by the DESS computer simulation was 47 kW.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Leave #2 ACSR		
Efficient technology:	Reconductor with 333.6 MCM		
Number of participants or units delivered:	1.00		
Measure life (years):	20.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	1.00		

B.	<b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
			Results	Results:
<sup>1</sup>	TRC Benefits (\$):	\$ -	\$ 234,933.29	\$ 234,933.29
<sup>2</sup>	TRC Costs (\$):			
	Utility program cost (less incentives):		\$ 158,000.00	\$ 158,000.00
	Incremental Measure Costs (Equipment Costs)	\$ -	\$ -	\$ -
	Total TRC costs:	\$ -	\$ 158,000.00	\$ 158,000.00
	Net TRC (in year CDN \$):	\$ -	\$ 76,933.29	\$ 76,933.29
	Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	\$ 1.49	\$ 1.49

C. **Results:** (one or more category may apply) **Cumulative Results:**

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
			Winter	47.00
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
		0.00	0.00	4568051.8
			05/06 Lifecycle	05/06 Annual
			4568051.8	228402.59
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):	
Distribution system power factor at beginning of year (%):	

Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

lifecycle in year

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>2005/2006 Costs</u>	<u>Cumulative Life to Date</u>
<b>D. <u>Program Costs*:</u></b>				
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	Incremental O&M:	\$ 1,170.60	\$ 58,612.04	\$ 59,782.64
	Incentive:	\$ -		\$ -
	Total:	\$ 1,170.60	\$ 58,612.04	\$ 59,782.64
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ 1,170.60	\$ 58,612.04	\$ 59,782.64

**E. Assumptions & Comments:**

Incremental cost of measure was \$158,000. Only \$58,612.04 charged against CDM third tranche programs

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit b

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made

\*Please refer to the TRC Guide for the treatment of equipment cost in the TRC Test.

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** System Optimization Studies

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

Intent is to target reductions in distribution losses. An infrared study, a System Optimization Study and Phase Balancing a Voltage Conversion Study, a Substation Study and a Load Data Study will be conducted to identify projects that will improve/reduce distribution system losses and improve system efficiency.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	0		
Number of participants or units delivered:	0.00		
Measure life (years):	0.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	0.00		

B. <b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
		Results	Results:
<sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):	\$ -	\$ 69,138.90	\$ 69,138.90
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ -	\$ 69,138.90	\$ 69,138.90
<b>Net TRC (in year CDN \$):</b>	<b>\$ -</b>	<b>-\$ 69,138.90</b>	<b>-\$ 69,138.90</b>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	\$ -	\$ -

C. **Results:** (one or more category may apply) **Cumulative Results:**

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)			
			0.00			
	Winter	0.00				
Energy saved (kWh):	lifecycle	0.00	in year	0.00	Cumulative Lifecycle	Cumulative Annual Savings
					0	0
					2005 Lifecycle	2005 Annual
Other resources saved :						
Natural Gas (m3):	0	0				
Water (l)	0	0				

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):	
Distribution system power factor at beginning of year (%):	
Distribution system power factor at end of year (%):	



# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Renewable Energy Study

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

Investigations will be conducted to determine the feasibility of one or more local renewable energy projects which will be canvassed for a first pass of possible implementation. Partnerships will also be formed with the intent of identifying opportunities to build awareness in creating a conservation culture.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	0		
Number of participants or units delivered:	0.00		
Measure life (years):	0.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	0.00		

**TRC Results:**

	<u>Reporting Year</u>	<u>2005 TRC Results</u>	<u>Life-to-date TRC Results:</u>
B. <sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):	\$ -	\$ 3,384.51	\$ 3,384.51
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ -	\$ 3,384.51	\$ 3,384.51
<u>Net TRC (in year CDN \$):</u>	<u>\$ -</u>	<u>-\$ 3,384.51</u>	<u>-\$ 3,384.51</u>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	\$ -	\$ -

C. **Results:** (one or more category may apply)

**Cumulative Results:**

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
	Winter	0.00	0.00	
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	0.00	0.00	0	0
			2005 Lifecycle	2005 Annual
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):	
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# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Smart Metering

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

Pilot studies will be conducted to investigate applicability and optimum introduction of the smart metering technologies. By partnering with other LDCs in the OUSM (UtilAssist) Group, coordination of multiple technologies and test results will achieve economies of scale as we move to the implementation stage.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	0		
Number of participants or units delivered:	0.00		
Measure life (years):	0.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	0.00		

	<u>Reporting Year</u>	<u>2005/2006 TRC Results</u>	<u>Life-to-date TRC Results:</u>
<b>TRC Results:</b>			
<sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):	\$ -	\$ 31,595.23	\$ 31,595.23
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ -	\$ 31,595.23	\$ 31,595.23
<u>Net TRC (in year CDN \$):</u>	<u>\$ -</u>	<u>-\$ 31,595.23</u>	<u>-\$ 31,595.23</u>
 Benefit to Cost Ratio (TRC Benefits/TRC Costs):	 #DIV/0!	 \$ -	 \$ -

C. **Results:** (one or more category may apply) Cumulative Results:

**Conservation Programs:**

Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
	Winter	0.00	0.00	
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	0.00	0.00	0	0
			2005 Lifecycle	2005 Annual
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	

**Demand Response Programs:**

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):	
Distribution system power factor at beginning of year (%):	

Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

lifecycle in year

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>2005/2006 Costs</u>	<u>Cumulative Life to Date</u>
<b>D. <u>Program Costs*:</u></b>				
Utility direct costs (\$):	Incremental capital:	\$ -	\$ 23,751.65	\$ 23,751.65
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	Incremental O&M:	\$ -		\$ -
	Incentive:	\$ -		\$ -
	<b>Total:</b>	\$ -	\$ 23,751.65	\$ 23,751.65
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ 1,563.18	\$ 1,563.18
	Incremental O&M:	\$ -		\$ -
	<b>Total:</b>	\$ -	\$ 1,563.18	\$ 1,563.18
<b>Total Utility Cost of Program</b>		\$ -	\$ 25,314.83	\$ 25,314.83

**E. Assumptions & Comments:**

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit b

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Spring Every Kilowatt Counts (EKC) Program

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

In partnership with the OPA provided customer incentives for energy efficient technologies. Involved both direct mail and in-store promotion along with local advertising and support.

**Measure(s):**

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Base case technology:	0	0.00	0.00	0.00	0.00	0.00
Efficient technology:	CFLs	Ceiling Fans	Timers	Progr. Thermostats	0.00	0.00
Number of participants or units delivered:		0.00	0.00	0.00	0.00	0.00
Measure life (years):	4.00	20.00	20.00	18.00	0.00	0.00
Number of participants or units 2006	1630	34	45	33		
Number of Participants or units delivered life-to-date	1,630.00	34.00	45.00	33.00	0.00	0.00

B.	<b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
			Results	Results:
	<sup>1</sup> TRC Benefits (\$):	\$ -	\$ 56,162.00	\$ 56,162.00
	<sup>2</sup> Measure's Costs (\$):			
	Utility program cost (less incentives):	\$ -		\$ -
	Participant cost:	\$ -	\$ 6,869.25	\$ 6,869.25
	Total TRC costs:	\$ -	\$ 6,869.25	\$ 6,869.25
	Net TRC (in year CDN \$):	\$0.00	\$ 49,292.75	\$ 49,292.75
	Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	\$ 8.18	\$ 8.18

C. <b>Results:</b> (one or more category may apply)			<b>Cumulative Results:</b>	
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer	1.91	Report Summer Demand (kW) 1.91	
	Winter	0.00		
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
	0.00	0.00	961039.98	170812.84
			2006 Lifecycle	2006 Annual
			961039.98	170812.84
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		
<b>Demand Management Programs:</b>				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

**Demand Response Programs:**

Dispatchable load (kW):

Peak hours dispatched in year (hours):

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

Energy savngs (kWh):  lifecycle  in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

D. <b>Program Costs*:</b>		2005/2006 Costs	Cumulative Life to Date
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
Error Choose Measures Cost Paid By on TRC1	Incremental O&M:	\$ -	\$ -
	Incentive:	\$ -	\$ -
	Total:	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -
	Total:	\$ -	\$ -
Total Utility Cost of Program		\$ -	\$ -

**E. Comments:**

Direct Mail coupons for all products were 155; in-store coupons for all programs total 1587

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Fall Every Kilowatt Counts (EKC) Program

**Description of the program (including intent, design, delivery, partnerships and evaluation):**

In partnership with the OPA provided customer incentives for energy efficient technologies. Involved both direct mail and in-store promotion along with local advertising and support.

**Measure(s):**

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
<i>Base case technology:</i>	0	0.00	0.00	0.00	0.00	0.00
<i>Efficient technology:</i>	CFLs	LED Xmas Lights	Dimmers	Progr. Thermostats	Motion Sensor	0.00
<i>Number of participants or units delivered:</i>	0.00	0.00	0.00	0.00	0.00	
<i>Measure life (years):</i>	4.00	30.00	10.00	18.00	20.00	0.00
<i>Number of participants or units 2006</i>	4899	2050	24	75	12	
<i>Number of Participants or units delivered life-to-date</i>	4,899.00	2,050.00	24.00	75.00	12.00	0.00

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:	
		2006 TRC Results	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ -	\$ 218,642.00	\$ 218,642.00
<sup>2</sup> Measure's Costs (\$):			
Utility program cost (less incentives):	\$ -	\$ 1.00	\$ 1.00
Participant cost:	\$ -	\$ -	\$ -
Total TRC costs:	\$ -	\$ 1.00	\$ 1.00
<b>Net TRC (in year CDN \$):</b>	<b>\$0.00</b>	<b>\$ 218,641.00</b>	<b>\$ 218,641.00</b>
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	#DIV/0!	\$ 218,642.00	\$ 218,642.00

C. <b>Results:</b> (one or more category may apply)				Cumulative Results:	
<b>Conservation Programs:</b>					
<i>Demand savings (kW):</i>	Summer	0.00	Report Summer Demand (kW)		
	Winter	0.00	0.00		
<i>Energy saved (kWh):</i>	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings	
			4295050	559907	
	2005 Lifecycle			2005 Annual	
	4295050			559907	
<i>Other resources saved :</i>					
Natural Gas (m3):	0	0			
Water (l)	0	0			
<b>Demand Management Programs:</b>					
Controlled load (kW)					

Energy shifted On-peak to Mid-peak (kWh):

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

**Demand Response Programs:**

Dispatchable load (kW):

Peak hours dispatched in year (hours):

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):

Energy savngs (kWh):  lifecycle  in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

D. <b><u>Program Costs*:</u></b>			<u>2005 Costs</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
Error Choose Measures Cost Paid By on TRC1	Incremental O&M:	\$ -		\$ -
	Incentive:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ -	\$ -	\$ -

**E. Comments:**

**Total direct mail coupons were 245; in-store coupons total 3681**

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the numebr of units times the net present value per unit benefit specified in the TRC Guide.

<sup>2</sup> For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.