Cornerstone Hydro Electric Concepts Association Inc.

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

Conservation and Demand Management
2006 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 2006. 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 the CHEC group worked both individually and collectively to delivery CD&M programs. 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.

In 2006 the level of activity varied significantly from member to member dependent on their remaining funds, resources and opportunities. Individual LDC activity level ranged from only being involved in "provincially led" initiatives to the development and delivery of a wide variety of programs. From a review of the programs it is interesting to note how opportunities, partnerships and delivery have matured at different rates in the different service territories.

Within the 16 utilities there have been a total of 104 initiatives worked on in 2006. As in the first year the initiatives represent projects specific to individual utilities and projects that are cooperative efforts between utilities or agencies (the OPA EKC Programs for example). While there were 104 initiatives included in the reporting many of the reports contained a number of separate activities joined in one Appendix B.

After the initial year where much of the ground work for future programs was started, one would expect that the majority of programs would be driving a positive TRC. On the population of 104 initiatives, 43% had a positive TRC. This low percentage of initiatives with a positive TRC indicates that many initiatives continued to focus on education, studies to prepare customers for

continued energy conservation and partnership building in the second year of the CDM program.

With the activity and experience gained in 2006 the CDM industry is moving towards the final year of third tranche funding and towards the new funding model. While the funding method will change the fundamental knowledge gained in delivering two years of CDM programming has proven and will continue to prove invaluable as programs continue to be offered to residential, commercial and industrial customers across the province.

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 2006 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

3.0 Evaluation of the CDM Plan:

Total Portfolio: The 16 CHEC members collectively undertook a total of 104 initiatives. These programs fell within three categories:

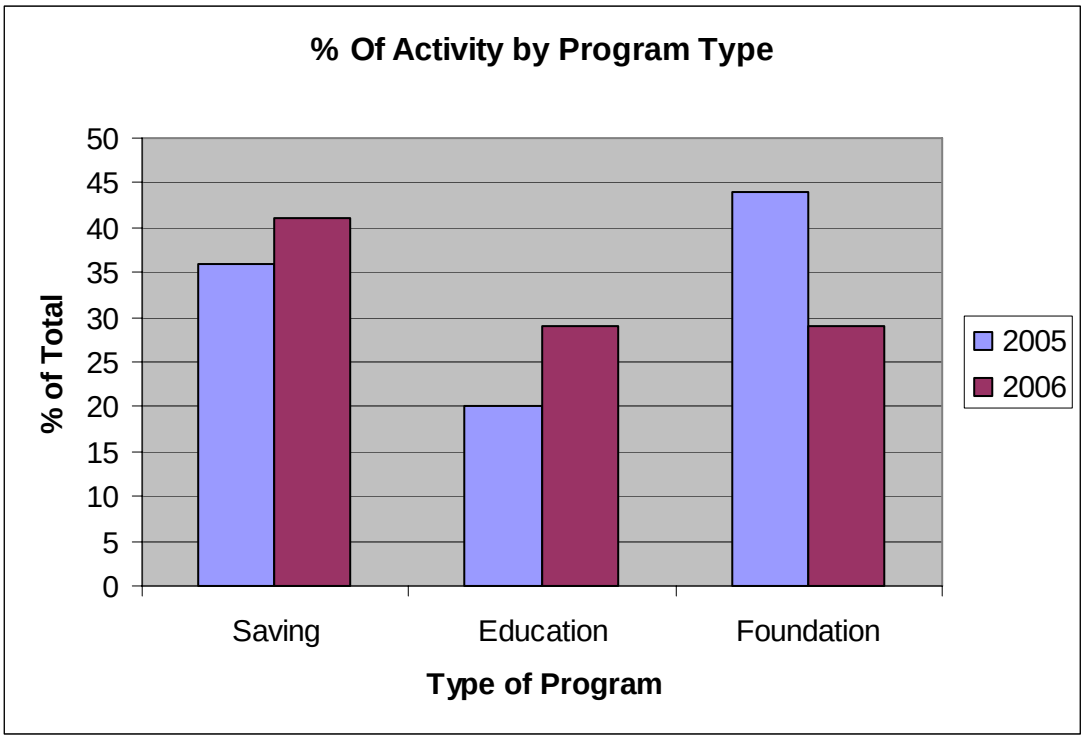
- Savings: Delivery of energy saving products or processes: coupons, rebates, free products, etc.
- Education: Providing general energy management information through such activities as: website development, workshops, brochures, etc,
- Foundation: Preparatory work for future programs that include: program research and development, energy audits, system studies, demonstration projects, partnerships, etc. This is a category that one might have expected to see reduced activity however it continues to be a major component.

The 2006 initiatives represent a total energy savings (lifecycle) of 129,330,000 kWh at a combined “Utility Cost” of $1,185,000 or approximately 1 c/kWh. This low cost of energy saved was achieved while continuing the education and foundation building programs. To put the energy savings in perspective the 129 Million kWh represent the annual energy required by 10,700 homes (at 1000

kWh/month). Comparing this to incandescent bulbs the energy saved is equivalent to removing approximately 1.5 Million, 60 W incandescent bulbs operating 4 hours per day for a year.

Figure 1 illustrates the change in program makeup from 2005 to 2006. The percentage of programs focused on "saving" and "education" have increased while the number of foundation" programs have decreased. The reduced focus on "foundation" programs in the second year is to be expected as the program mature and initiatives move from planning to delivery thereby increasing the number of "savings" and 'education' initiatives. Many "foundation" programs continue into the third year and will form the basis for conservation activities beyond third tranche by both utilities and their partners.

Figure 1



While the Figure provides a general breakdown it should be noted that there are many education programs that are now incorporating savings into the deliverables. The ability to incorporate savings and education provides an immediate conservation benefit, a positive TRC for the program and sets the stage for continued customer interest in conservation in the future.

Savings Programs: Programs were initiated both at the local and provincial level. Key to the 2006 results was the active participation of CHEC members in the OPA Every Kilowatt Counts programs. These programs in many instances provided a "savings" and "education" program that members could support without depleting their third tranche funding.

On the local level savings programs focused on local partnerships and delivery channels. Projects like municipal traffic light conversion built on the existing relationship with the municipality, provided benefits to the entire community and once installed ensured that the technology would remain in place once the benefits of lower cost and maintenance were recognized.

The use of product incentives and give-a-ways continued to play a significant role in the local programming. Capitalizing on the ability to participate in local events the provision of energy efficient product was a direct method of demonstrating the technology to the customer.

System optimization projects continue to be included in the portfolio. Nine initiatives focused on either completing the studies associated with system optimization or the implementation of field changes. System optimization continues to be an area for potential savings.

Education Programs: LDC's started to see opportunities to partner with others to provide programs into the education system. CHEC members along with other utilities in the service territory of Boards of Education are funding the development of programs for delivery in the schools. During 2006 third party providers (in many instances not-for-profits) made approaches to members for support and delivery of programs. As the conservation culture continues to develop the resources to provide this type of education will most likely continue to increase. The third tranche funding and the LDCs interest in partnering have helped this process.

Members have also been active in supporting education programs for the commercial and industrial sector. The challenge to date has been evaluating the results of this training. In most cases the proof of success is mostly anecdotal where mention is made of actions taken as a result of the training without any firm data. For this reason most education initiatives in this sector do not show a positive TRC.

Foundation Program: Many of the "foundation" type programs underway during 2006 were aimed at providing information to partners for further action. The CHEC members have actively supported alternate energy initiatives with a number of projects specific to these types of initiatives. The support provided at this stage, on the local level, can be pivotal on the success of future activities by community based groups.

In 2005 the "foundation" programs included initiatives such as: system optimization studies, smart meter preparation, customer audits and demonstration projects. In 2006 the increase in "education" and "savings" programs in some instances were the results of the 2005 foundation work. 2005 work on system optimization was a critical precursor to the project implementation in 2006 (and

2007). In some instances the full studies will only be completed in 2007 with the impact of implementation only being taken beyond the third tranche time frame.

Net TRC Results: The net TRC result of the combined CHEC CDM activity for 2006 is $3,800,000 up from $500,000 in 2005. The increase in TRC indicates the development of the industry over the first year resulting in deliverables in the second year.

Part of the development of the CDM industry was the provincial EKC programs – a program that built on the experience gained from the 2005 program coordinated by Energyshop.com and subscribed by a number of CHEC members. The involvement of CHEC members in the EKC programs resulted in 86% of the TRC results for member LDCs. The benefits of combining local support in wider based programs are clearly demonstrated by the success of these programs.

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:

Application of TRC: 2005 was the introduction to the TRC tool. While the tool can be used to evaluate programs to ensure a positive TRC result in many instances the 2006 programs were set prior to experience with the tool.

The principles of TRC are generally easy to understand: energy efficiency case vs base case. However the mechanics of determining the details of the evaluation can be quite complex depending on the application. CHEC members spent considerable time ensuring the assumptions and discounted costs were properly applied. In many instances the experience of one member was utilized to assist others within the group.

One of the greatest challenges with TRC remains the carryover of familiarity with its use. While the second year of applying the TRC was a bit more familiar the application is still a challenge as the use of the tool tends to occur in discreet measures (ie to do the Annual Report).

Funding: CHEC members in general have funds for continued programs in 2007 (with a few exceptions). With the advent of provincial programs the ability to stretch the third tranche funding has occurred. Hence the need for additional funding based on the LDCs plan can, to a large extent, be avoided until the LDCs Funding through the OPA is available.

Partnerships and Sharing: The ability to partner has increased in year two of the CDM Funding. Not-for-Profit Agencies, municipalities, local groups etc. have become aware of potential for partnering and have either approached members or have been very positive to LDC initiatives. It is anticipated that the ability to partner with a wide variety of groups within our communities should continue to grow. As such, it will be an important aspect of program delivery that the LDC community will need to broach with the OPA through 2008 and beyond.

The sharing of experience and insights by CHEC members is on-going. In 2006 CHEC members had the opportunity to participate in the development of the CDM industry structure for moving forward. The perspective brought by smaller participants helps to ensure the success of program delivery across the entire province in both large and small communities.

Customer Readiness: The results of the 2006 programs highlights that the conservation message is starting to be understood and that residential customers will take action.

In 2007 and beyond programs will need to reach beyond the compact fluorescent light to clearly demonstrate to customers that they have a wide variety of opportunities. There may be additional challenges to overcome to move these messages forward as the cost to implement and the payback may not be as favourable.

While programs have been successful with residential customers more work is required to make inroads into the commercial and industrial sector. These sectors continue to be difficult to get actively engaged. Future programs will need to take into account the customer's limited resources, long lead times, and provide demonstrated value of conservation to their business. Experience is showing that in this sector, the progression from initial discussion, to decision, to action is slow and methodical.

Utility Resources: Utilities continue to utilize internal resources for much of the CDM work as it is integrated into the systems of the LDC. CDM calls received, the manager's time to promote CDM, the accountant's time to record and report, are all functions immersed in the activities of existing positions. The ability to manage these requirements as the industry moves forward will need to be addressed by LDCs.

6.0 Conclusion:

The second year of CDM delivered a significant increase in the kWhs saved and continues to set the stage for on-going development of the CDM industry.

LDCs continue to support CDM and the involvement at the local level. CHEC members through their local programs, involvement in provincial programs and participation in the design of the industry continue to demonstrate their support for CDM, for the provincial initiative and their customers.

7.0 Appendices:

MIDLAND POWER UTILITY CORPORATION

CDM PLAN

ANNUAL REPORT

FOR THE YEAR ENDED DECEMBER 31, 2006

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:

Program	February 2005 Order	August 2006 Order	20% Cumulative Transfer - 2006	Program Budget Dec 31, 2006
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	$ 0.00	$ 15,461.00
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	$112,800.00	-$ 9.65	$112,790.35
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		$ 20,000.00
TOTALS	**$234,433.00**	**$234,433.00**	**$ 3,128.00**	**$234,433.00**

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 transfer of $3,128.00 to Education/Promotion 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

Program	Program Budget	2005 Expenditures	2006 Expenditures	2007 Expenditures
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	$ 15,461.00	$ 6,098.90	$ 1,151.13	$ 8,210.97
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	$112,790.35	$ 17,050.83	$ 95,739.52	$ 00.00
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	$ 20,000.00	$ 11,039.39	$ 7,603.34	$ 1,357.27
TOTALS	**$234,433.00**	**$ 72,370.55**	**$152,494.21**	**$ 9,568.24**

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.

TOTAL PROGRAM BUDGET per Order Feb 2005:		**$1,000.00**
Transfer From Education & Promotion Dec 2006		**$ 185.26**
TOTAL PROGRAM BUDGET		**$1,185.26**
COSTS INCURRED		
Per RRR submitted to OEB Jan 31/06	**$23.51**	
Additional Year End Adjustments	**(.42)**	
Balance At December 31, 2005:		**$ 23.09**
Expenditures 2006		**$1,162.17**
Per RRR submitted to OEB Jan/07		**$1,185.26**
TOTAL PROGRAM COST:		**$1,185.26**

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.

PROGRAM BUDGET per Order Feb 2005:	**$6,100.00**
Transfer to Education & Promotion	**$ 1.61**
TOTAL PROGRAM BUDGET	**$6,098.39**

COSTS INCURRED		
Expenditures - 2005		
Per RRR submitted to OEB Jan 31/06	**$2,926.92**	
Additional Year End Adjustments	**(2.57)**	
Balance At December 31, 2005:		**$2,924.35**
Expenditures -2006		**$3,174.04**
Per RRR submitted to OEB Jan/07		**$6,098.39**
TOTAL PROGRAM COST:		**$6,098.39**

PROJECT COMPLETED **December, 2006**

#3. NAME OF PROGRAM: EDUCATION/PROMOTION

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 education and promotion costs are shared where possible with other members of the CHEC group and the increased buying power of the group will leverage more value to customers and shareholders.

Advancing the importance of understanding conservation to customers in all market sectors and in turn facilitating the programs to permit customers acting on the energy saving opportunities requires significant effort and consistent marketing. Common messages and approaches are implemented to achieve greatest possible penetration. It is also very important that LDC staff understand how the various activities included in the CDM plan will not only help the consumer but the LDC as well. The level of knowledge the staff has on the benefits of various programs can significantly affect the success level of any program.

Although savings cannot be quantitatively measured, it is through the education and promotion activities that the consumer will take up the conservation culture and apply this culture to their everyday lives.

In 2005 the brochures produced by the Ministry of Energy – "Conserve Energy and Save Money" were purchased and were provided to all residential and general service customers along with a CFL. The costs of these brochures, which supported the lightbulb give away, are included in the lightbulb program.

In 2006, MPUC incurred additional costs for the Ministry of Energy brochures which supported the lightbulb giveaway. Additional costs relating to the OPG programs and a Teach the Teacher program (to be completed in 2007) were incurred in 2006. MPUC along with other LDCs have partnered with the Simcoe County District School Board to bring the ECO Schools program to the areas we serve. This program is not funded through any existing process and is an opportunity to bring the CDM component into the Grade 5 curriculum thereby instilling energy conservation into the youth of today ensuring the next generation adopts conservation as a part of their everyday activities. MPUC provided training for the teachers who will deliver this program to the schools.

TOTAL PROGRAM BUDGET per Order Feb 2005:		**$12,333.00**
TRANSFER TO CUSTOMER SURVEY PROJECT Dec 2006	**$ -185.26**	
TRANSFER FROM CONSERVATION WEBSITE Dec 2006	**$ 1.61**	
TRANSFER FROM LIGHTBULB GIVEAWAY	**$ 554.93**	
TRANSFER FROM PARTNRSHP/SPONSORSHIPS Dec 2006	**$ 2,952.41**	
TRANSFER FROM SYSTEM OPTIMIZATION	**$ 9.65**	
TRANSFER FROM RENEWABLE ENERGY STUDY Dec 2006	**$ 109.46**	
TRANSFER TO SMART METERING	**$ -314.80**	
NET TRANSFERS		**$ 3,128.00**
TOTAL PROGRAM BUDGET		**$15,461.00**

COSTS INCURRED		
Expenditures - 2005		
Per RRR submitted to OEB Jan 31/06	**$6,104.09**	
Additional Year End Adjustments	**(5.19)**	
Balance At December 31, 2005:		**$ 6,098.90**
Expenditures - 2006		**$ 1,151.13**
Per RRR submitted to OEB Jan/07		**$ 7,250.03**
TOTAL PROGRAM BUDGET		**$15,461.00**
PROGRAM SPENDING FOR 2007		**$ 8,210.97**

#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.

TOTAL PROGRAM BUDGET : transferred from Smart Metering		**$25,000.00**
COSTS INCURRED		
Per RRR submitted to OEB Jan 31/06	**$24,515.63**	
Additional Year End Adjustments	**(70.56)**	
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.

TOTAL PROGRAM BUDGET per Order Feb 05:	**$15,000.00**
Transfer Per Order August 2, 2006	**$15,000.00**
PROGRAM BUDGET 2006	**$30,000.00**
TRANSFERRED TO EDUCATION AND PROMOTION	**$ 2,952.41**
TOTAL PROGRAM BUDGET:	**$27,047.59**

COSTS INCURRED		
Expenditures - 2005		
Per RRR submitted to OEB Jan 31/06	**$ 1,953.26**	
Additional Year End Adjustments	**53.69**	
At December 31, 2005:		**$ 2,006.95**
Expenditures 2006		**$25,040.64**
Per RRR submitted to OEB Jan/07		**$27.047.59**

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: Infared 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.

CDM PROGRAM BUDGET per Order Feb 2005	**$ 65,000.00**
Transfer Per Order August 2, 2006	**$ 47,800.00**
PROGRAM BUDGET	**$112,800.00**
TRANSFER TO EDUCATION AND PROMOTION	**$ 9.65**
TOTAL PROGRAM BUDGET	**$112,790.35**

COSTS INCURRED		
Expenditures - 2005		
Per RRR submitted to OEB Jan 31/06	**$17,078.20**	
Additional Year End Adjustments	**(27.37)**	
At December 31, 2005:		**$ 17,050.83**
Expenditures – 2006		**$ 95,739.52**
TOTAL PROGRAM EXPENSES		**$112,790.35**

PROJECT COMPLETED **December, 2006**

#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.

TOTAL PROGRAM BUDGET per Order Feb 2005:		**$ 40,000.00**
Transfer Per Order August 2, 2006		**$-37,800.00**
PROGRAM BUDGET		**$ 2,200.00**
TRANSFER TO EDUCATION AND PROMOTION		**$ - 109.46**
TOTAL PROGRAM COST		**$ 2,090.54**
COSTS INCURRED		
Per RRR submitted to OEB Jan 31/06	**$2,107.38**	
Additional Year End Adjustments	**(16.84)**	
At December 31, 2005:		**$ 2,090.54**

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.

TOTAL PROGRAM BUDGET per Order Feb 2005:		**$75,000.00**
Transfer per Order August 2, 2006		**-$50,000.00**
PROGRAM BUDGET		**$25,000.00**
TRANSFERRED FROM EDUCATION AND PROMOTION		**$ 314.80**
TOTAL PROGRAM BUDGET		**$25,314.80**

COSTS INCURRED		
EXPENDITURES – 2005		
Per RRR submitted to OEB Jan 31/06	**$ 6,613.82**	
Additional Year End Adjustments	**$ 77.61**	
At December 31, 2005:		**$ 6,691.43**
EXPENDITURES – 2006		
Per RRR submitted to OEB Jan/07		**$18,623.37**
TOTAL PROGRAM COSTS		**$25,314.80**

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.

TOTAL PROGRAM BUDGET - per Order Feb 2005:		**$20,000.00**

COSTS INCURRED		
EXPENDITURES - 2005		
Per RRR submitted to OEB Jan 31/06	**$11,047.74**	
Additional Year End Adjustments	**(8.35)**	
At December 31, 2005:		**$11,039.39**
EXPENDITURES – 2006		**$ 7,603.34**
Per RRR submitted to OEB Jan/07		**$18,642.73**
TOTAL PROGRAM BUDGET		**$20,000.00**
PROGRAM SPENDING FOR 2007		**$ 1,357.27**

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. The majority of programs delivered through the third tranche spending in 2006 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 the year.**

3. **Overall expenditures per kWh saved is $.02 which is low. Midland Power has reached over 7000 users of electricity in the Town of Midland. We will continue to foster a conservation culture as we build 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 $58,600 was allocated from the 3rd Tranche CDM monies.**

7. **The bulk of MPUC's programs have been completed in 2006 with the final programs being delivered in the spring/summer of 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.

	[5] Cumulative Totals Life-to-date	Total for 2006	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	[4] Smart Meters	Other #1	Other #2
Net TRC value ($):	*394859.3906*	**$ 271,863**	**$ 234,952**	**$ -**	**$ 8,331**	**$ -**	**$ -**	**$ 28,580**		**$ -**	**$ -**
Benefit to cost ratio:	*2.30*	2.10	6.90	0.00	6.05	0.00	0.00	1.14		0.00	0.00
Number of participants or units delivered:	*15,888*	*8,832*	8,803	0	28	0	0	1		0	0
Lifecycle (kWh) Savings:	*13263921.78*	10,079,502	5,256,090	0	255,360	0	0	4,568,052		0	0
Report Year Total kWh saved (kWh):	*1697544.426*	971,891	730,720	1	12,768	0	0	228,403		0	0
Total peak demand saved (kW):		52	2	0	3	0	0	47		0	0
Total kWh saved as a percentage of total kWh delivered (%):	*0.36254%*	0.413584%	1.500512%	0.000004%	1.109336%	0.00%	#DIV/0!	2.860789%		#DIV/0!	#DIV/0!
Peak kW saved as a percentage of LDC peak kW load (%):		0.132248%	0.004883%	0.00%	0.007431%	0.00%	0.00%	0.119935%		0.00%	0.00%
[1] Report Year Gross C&DM expenditures ($):	*324252.98*	$ 251,883	$ 30,529	$ -	$ 7,603	$ -	$ -	$ 195,127	$ 18,623	$ -	$ -
[2] Expenditures per KWh saved ($/kWh):	$ 0.02	$ 0.02	$ 0.01	$ -	$ 0.03	$ -	$ -	$ 0.04		$ -	$ -
[3] Expenditures per KW saved ($/kW):		$ 4,860.23	$ 15,955.36	$ -	$ 2,611.06	$ -	$ -	$ 4,151.65		$ -	$ -

Utility discount rate (%):	6.90%

[1] Expenditures are reported on accrual basis.
[2] Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.
[3] Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.
[4] 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.
[5] 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: **2006**

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)	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 ($)
Customer Survey	$ -	$ 1,193	-$ 1,193	0.00	0	0	0	$ 1,162
Conservation Website	$ -	$ 3,365	-$ 3,365	0.00	0	0	0	$ 3,174
Education and Promotion	$ -	$ 2,536	-$ 2,536	0.00	0	0	0	$ 1,151
LightBulb Giveaway	$ -	$ -	$ -	0.00	0	0	0	$ -
Partnership/Sponsorships	$ -	$ 25,887	-$ 25,887	0.00	0	0	0	$ 25,041
Spring Every Kilowatt Counts (EKC) I	$ 56,162	$ 6,869	$ 49,293	8.18	170,813	961,040	2	$ -
Fall Every Kilowatt Counts (EKC) Pro	$ 218,642	$ 1	$ 218,641	218642.00	559,907	4,295,050	0	$ 1
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Residential**	$ 274,804	$ 39,852	$ 234,952	6.90	730,720	5,256,090	2	$ 30,529
Residential Indirect Costs not attributable to any specific program →		$ -			*Total Residential kWh Delivered in 2006*	48,698,033		
Total Residential TRC Costs		$ 39,852			Residential Peak in 2006 in kW		39,188	
****Totals TRC - Residential**	**$ 274,804**	**$ 39,852**	**$ 234,952**	**6.90**				

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)	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	1			
***Totals App. B -**	$ -	$ -	$ -	0.00	1	0	0	$ -
Commercial Indirect Costs not attributable to any specific program →					*Total Commercial kWh Delivered in 2006*	26949530		
Total TRC Costs		$ -			Commercial Peak in 2006 in kW		39,188	
****Totals TRC - Commercial**	**$ -**	**$ -**	**$ -**	**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)	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 ($)
Streetlight Conversion	$ 9,980	$ 1,649	$ 8,331	6.05	12,768	255,360	3	$ 7,603
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 -**	$ 9,980	$ 1,649	$ 8,331	6.05	12,768	255,360	3	$ 7,603
Institutional Indirect Costs not attributable to any specific program →					*Total Institutional kWh Delivered in 2006*	1150959		
Total TRC Costs		$ 1,649			Institutional Peak in 2006 in kW		39,188	
****Totals TRC - Institutional**	**$ 9,980**	**$ 1,649**	**$ 8,331**	**6.05**				

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 (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 Prorgam 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 2006*		158022092		
Total TRC Costs		$ -			Industrial Peak in 2006 in kW		39,188	
****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 (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	$ -
Agricultural Indirect Costs not attributable to any specific program →				*Total Agricultural kWh Delivered in 2006*				
Total TRC Costs		$ -			Agricultural Peak in 2006 in kW		39,188	
****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 (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 ($)
98-M4 Reconductoring - System Opti	$ 234,933	$ 158,000	$ 76,933	1.49	228,403	4,568,052	47	$ 158,000
System Optimization Studies	$ -	$ 48,354	-$ 48,354	0.00	0	0	0	$ 37,127
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 -**	$ 234,933	$ 206,354	$ 28,580	1.14	228,403	4,568,052	47	$ 195,127
LDC System Indirect Costs not attributable to any specific program →				*Total Losses kWh Delivered in 2006*		7983900.85		
Total TRC Costs		$ 206,354			LDC Peak in 2006 in kW		39,188	
****Totals TRC - LDC System**	**$ 234,933**	**$ 206,354**	**$ 28,580**	**1.14**				

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 ($)	18,623

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 2006*				
Total TRC Costs		$ -			"Other" Peak in 2006 in kW		39,188	
****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 2006*				
Total TRC Costs		$ -			"Other" Peak in 2006 in kW		39,188	
****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**	$ 519,717	$ 247,854	$ 271,863	2.10	$ 971,891	$ 10,079,502	$ 52	$ 251,883
*Any **other** Indirect Costs not attributable to any specific program*				*Total kWh Delivered in 2006*		234992621		
TOTAL ALL LDC COSTS		$ 247,854			Total Peak in 2006 in kW		39,188	
****LDC' PORTFOLIO TRC**	$ 519,717	$ 247,854	$ 271,863	2.10				
				Total kWh Delivered in 2005		233239880		

* 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:** 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:	0		
Efficient technology:	0		
Number of participants or units delivered:	1.00		
Measure life (years):	0.00		
Number of participants or units 2005			
Number of Participants or units delivered life-to-date	1.00		

B. **TRC Results:**

	Reporting Year	2005 TRC Results	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 1,193.42	$ 55.44	$ 1,248.86
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 1,193.42	$ 55.44	$ 1,248.86
Net TRC (in year CDN $):	-$ 1,193.42	-$ 55.44	-$ 1,248.86
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	$ -	$ -

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

Conservation Programs:

			Cumulative Results:	
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 begining 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):	

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ 1,162.17	$ 23.09	$ 1,185.26
	Incentive:	$ -		$ -
	Total:	$ 1,162.17	$ 23.09	$ 1,185.26
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 1,162.17	23.09	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.

[1] 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

[2] 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:	0		
Efficient technology:	0		
Number of participants or units delivered:	0.00		
Measure life (years):	0.00		
Number of participants or units 2005	1		
Number of Participants or units delivered life-to-date	1.00		

B. **TRC Results:**

	Reporting Year	2005 TRC Results	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 3,364.67	$ 3,121.68	$ 6,486.35
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 3,364.67	$ 3,121.68	$ 6,486.35
Net TRC (in year CDN $):	-$ 3,364.67	-$ 3,121.68	-$ 6,486.35
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	$ -	$ -

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

Conservation Programs:

			Cumulative Results:	
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 begining 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):

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ 3,164.64	$ 2,783.50	$ 5,948.14
	Incentive:	$ -		$ -
	Total:	$ 3,164.64	$ 2,783.50	$ 5,948.14
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ 9.40	$ 140.85	$ 150.25
	Total:	$ 9.40	$ 140.85	$ 150.25
Total Utility Cost of Program		$ 3,174.04	2,924.35	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.

[1] units times the net present value per unit b

[2] 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:** Education and Promotion

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

Using economies of scale some costs are shared with other members of the CHEC group 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 effort 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 or units 2005			
Number of Participants or units delivered life-to-date	0.00		

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 2,536.48	$ 683.73	$ 3,220.21
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 2,536.48	$ 683.73	$ 3,220.21
Net TRC (in year CDN $):	-$ 2,536.48	-$ 683.73	-$ 3,220.21
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) 0.00
	Winter	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 begining 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):

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ 1,151.13	$ 284.77	$ 1,435.90
	Incentive:	$ -		$ -
	Total:	$ 1,151.13	$ 284.77	$ 1,435.90
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 1,151.13	284.77	1,435.90

E. Assumptions & Comments:

Although savings cannot be measured, it is through these programs that consumers will recognize the need to conserve. Program is ongoing

[1] units times the net present value per unit b

[2] 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
Base case technology:	60W Incandescent	60 W Incandescent	0.00	0.00	0.00	0.00
Efficient technology:	15W CFL	15 W CFL	0.00	0.00	0.00	0.00
Number of participants or units delivered:	0.00	0.00	0.00	0.00	0.00	0.00
Measure life (years):	4.31	2.00	0.00	0.00	0.00	0.00
Number of participants or units 2005	6300	700				
Number of Participants or units delivered life-to-date	6,300.00	700.00	0.00	0.00	0.00	0.00

B.

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

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	2778300	705348
			2005 Lifecycle	*2005 Annual*
			2,778,300.00	705,348.00

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 begining 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):

D. **Program Costs*:**

			2005 Costs	**Cumlative Life to Date**
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Error Choose Measures Cost Paid by on TRC3	*Incremental O&M:*	$ -	$ 25,066.16	$ 25,066.16
	Incentive:	$ -		$ -
	Total:	$ -	$ 25,066.16	$ 25,066.16
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -	$ 6,853.64	$ 6,853.64
	Total:	$ -	$ 6,853.64	$ 6,853.64
Total Utility Cost of Program		$ -	31,919.80	31,919.80

E. Comments:

[1] 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.

[2] 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:** 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.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 25,887.05	$ 831.59	$ 26,718.64
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 25,887.05	$ 831.59	$ 26,718.64
Net TRC (in year CDN $):	-$ 25,887.05	-$ 831.59	-$ 26,718.64
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	
	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 begining 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):

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ 25,000.00	$ 346.35	$ 25,346.35
	Incentive:	$ -		$ -
	Total:	$ 25,000.00	$ 346.35	$ 25,346.35
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ 40.64		$ 40.64
	Total:	$ 40.64	$ -	$ 40.64
Total Utility Cost of Program		$ 25,040.64	346.35	25,386.99

E. Assumptions & Comments:

Low Income Housing received CFLs which were included in the report in 2005 under the Lightbulb giveaway. The total incremental cost from this partnership was $1660.60.

[1] 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

[2] 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:** 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.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ 234,933.29		$ 234,933.29
[2] *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):	1.49	#DIV/0!	$ 1.49

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

Conservation Programs:

			Cumulative Results:	
Demand savings (kW):	*Summer*	47.00	Report Summer Demand (kW)	
	Winter	47.00	47.00	
	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*4,568,051.80*	228,402.59	4568051.8	228402.59
			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 begining of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

	lifecycle	in year
Peak load savings (kW):		
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):	

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ 158,000.00		$ 158,000.00
	Incentive:	$ -		$ -
	Total:	$ 158,000.00	$ -	$ 158,000.00
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 158,000.00	-	158,000.00

E. Assumptions & Comments:

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

[1] 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

[2] 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 system losses. An Infared 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 distrubtion 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.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 48,353.63	$ 20,785.27	$ 69,138.90
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 48,353.63	$ 20,785.27	$ 69,138.90
Net TRC (in year CDN $):	-$ 48,353.63	-$ 20,785.27	-$ 69,138.90
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	
	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 begining 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):

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 37,127.48	$ 15,550.00	$ 52,677.48
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ -		$ -
	Incentive:	$ -		$ -
	Total:	$ 37,127.48	$ 15,550.00	$ 52,677.48
Utility indirect costs ($):	*Incremental capital:*	$ -	$ 1,500.83	$ 1,500.83
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ 1,500.83	$ 1,500.83
Total Utility Cost of Program		$ 37,127.48	17,050.83	54,178.31

E. **Assumptions & Comments:**

[1] 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

[2] 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:** Renewable Energy Study

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

nvestigations 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		

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ -		$ -
[2] *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
Net TRC (in year CDN $):	$ -	-$ 3,384.51	-$ 3,384.51
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 begining 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):	

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ -		$ -
	Incentive:	$ -		$ -
	Total:	$ -	$ -	$ -
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -	$ 2,090.54	$ 2,090.54
	Total:	$ -	$ 2,090.54	$ 2,090.54
Total Utility Cost of Program		$ -	2,090.54	2,090.54

E. Assumptions & Comments:

[1] units times the net present value per unit b

[2] 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:** Smart Metering

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

Pilot studies will be conducted to investigate aplicability and optimum introdution 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		

B. **TRC Results:**

	Reporting Year	2005 TRC Results	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 22,763.70	$ 8,831.53	$ 31,595.23
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 22,763.70	$ 8,831.53	$ 31,595.23
Net TRC (in year CDN $):	-$ 22,763.70	-$ 8,831.53	-$ 31,595.23
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

	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 begining 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):

D. **Program Costs*:**

		Reporting Year	2005 Costs	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 18,623.37	$ 5,128.28	$ 23,751.65
Includes Measure's Cost - ensure full cost of measure entered in TRC!L15	*Incremental O&M:*	$ -		$ -
	Incentive:	$ -		$ -
	Total:	$ 18,623.37	$ 5,128.28	$ 23,751.65
Utility indirect costs ($):	*Incremental capital:*	$ -	$ 1,563.18	$ 1,563.18
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ 1,563.18	$ 1,563.18
Total Utility Cost of Program		$ 18,623.37	6,691.46	25,314.83

E. Assumptions & Comments:

Note: Total TRC for 2006 Report is impacted by removal of 2005 Costs from Net TRC calculation. 2005 and 2006 numbers added together need to be adjusted by 8831.53 to balance. This is caused by change in reporting requirements by OEB on Smart Meters. This also requires an adjustement of 25314 on the total expenditures.

[1] 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

[2] 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:** Streetlight Conversion

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

Convert municipal streetlight from incandescent to high pressure sodium. Program to save energy and reduce streetlight demand. Replacement of 28units, 16 as 70 W HPS and 12 as 100 W HPS.

Measure(s):

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Base case technology:	200 W Incandescent	200 W Incandescent	0.00	0.00	0.00	0.00
Efficient technology:	100 W HPS	70 W HPS	0.00	0.00	0.00	0.00
Number of participants or units delivered:	12.00	16.00	0.00	0.00	0.00	0.00
Measure life (years):	20.00	20.00	0.00	0.00	0.00	0.00
Number of participants or units 2005	24	31				
Number of Participants or units delivered life-to-date	36.00	47.00	0.00	0.00	0.00	0.00

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	*$ 9,980.08*	$ 14,308.95	$ 24,289.03
[2] *Measure's Costs ($):*			
Utility program cost (less incentives):	$ 2,329.90	$ 1,349.59	$ 3,679.49
Participant cost:	-$ 681.24		-$ 681.24
Total TRC costs:	$ 1,648.66	$ 1,349.59	$ 2,998.25
Net TRC (in year CDN $):	$8,331.42	$ 12,959.36	$ 21,290.78
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	6.05	$ 10.60	$ 8.10

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

Cumulative Results:

Conservation Programs:

			Report Summer Demand (kW)	
Demand savings (kW):	*Summer*	0.00	0.00	
	Winter	2.91		
	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*255,360.00*	12,768.00	661480	33074
			2005 Lifecycle	*2005 Annual*
			406,120.00	20,306.00

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 begining 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):

D. **Program Costs*:**

			2005 Costs	**Cumlative Life to Date**
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Error Choose Measures Cost Paid by on TRC3	*Incremental O&M:*	$ 7,603.40	$ 11,039.39	$ 18,642.79
	Incentive:	$ -		$ -
	Total:	$ 7,603.40	$ 11,039.39	$ 18,642.79
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 7,603.40	11,039.39	18,642.79

E. Comments:

[1] 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.

[2] 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:** 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:	1,630.00	34.00	45.00	33.00	0.00	0.00
Measure life (years):	4.00	20.00	20.00	18.00	0.00	0.00
Number of participants or units 2005						
Number of Participants or units delivered life-to-date	1,630.00	34.00	45.00	33.00	0.00	0.00

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ *56,162.00*		$ 56,162.00
[2] *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 $):	$49,292.75	$ -	$ 49,292.75
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	8.18	#DIV/0!	$ 8.18

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

Cumulative Results:

Conservation Programs:

			Report Summer Demand (kW)	
Demand savings (kW):	*Summer*	1.91	1.91	
	Winter	0.00		
	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*961,039.98*	170,812.84	961039.98	170812.836
			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 begining 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):

D. **Program Costs*:**

			2005 Costs	**Cumlative 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

[1] 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.

[2] 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
Base case technology:	0	0.00	0.00	0.00	0.00	0.00
Efficient technology:	CFLs	LED Xmas Lights	Dimmers	Progr. Thermostats	Motion Censor	0.00
Number of participants or units delivered:	4,899.00	2,050.00	24.00	75.00	12.00	
Measure life (years):	4.00	30.00	10.00	18.00	20.00	0.00
Number of participants or units 2005						
Number of Participants or units delivered life-to-date	4,899.00	2,050.00	24.00	75.00	12.00	0.00

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	*$ 218,642.00*		$ 218,642.00
[2] *Measure's Costs ($):*			
Utility program cost (less incentives):	$ 1.00		$ 1.00
Participant cost:	$ -		$ -
Total TRC costs:	$ 1.00	$ -	$ 1.00
Net TRC (in year CDN $):	$218,641.00	$ -	$ 218,641.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	218,642.00	#DIV/0!	$ 218,642.00

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

	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*4,295,050.00*	559,907.00	4295050	559907
			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 begining 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):

D. **Program Costs*:**

			2005 Costs	**Cumlative Life to Date**
Utility direct costs ($):	*Incremental capital:*	$ -		$ -
Error Choose Measures Cost Paid By on TRC1	*Incremental O&M:*	$ 1.00		$ 1.00
	Incentive:	$ -		$ -
	Total:	$ 1.00	$ -	$ 1.00
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 1.00	-	1.00

E. Comments:

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

[1] 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.

[2] 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.