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:

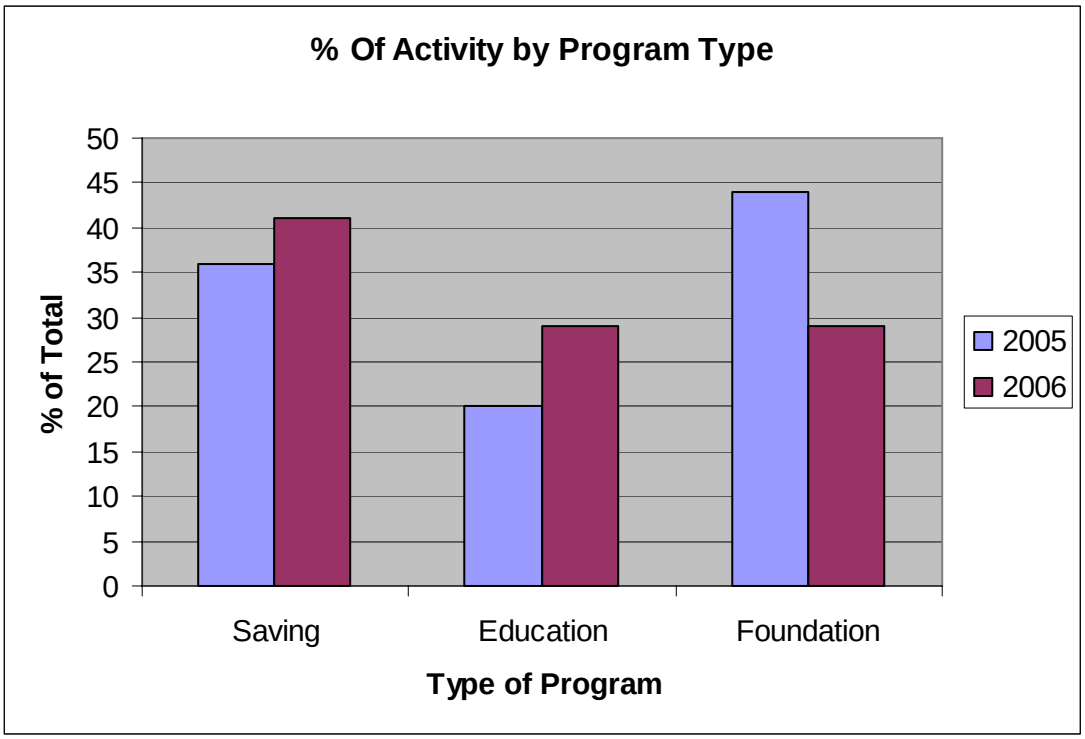
- Savings: Delivery of energy saving products or processes: coupons, rebates, free products, etc.
- Education: Providing general energy management information through such activities as: website development, workshops, brochures, etc,
- Foundation: Preparatory work for future programs that include: program 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:

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Board Secretary
Ontario Energy Board
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Toronto, Ontario M4P 1E4
Telephone (416) 481-1967

Wednesday, March 15, 2006

Re: CDM Third Tranche Funding, COLLUS Power Corp.

In November of 2004, COLLUS Power Corp, along with other LDC members of the Cornerstone Hydro Electric Concepts Association Inc. (CHEC) filed an application for a Final Order pre-approving its individual Conservation and Demand Management (CDM) Plan. COLLUS Power Corp is pleased to have been involved along with the other members of the CHEC group in promoting the adoption of a "Conservation Culture" across our service territory.

As an active supporter of Conservation and Demand Side Management since the early 90's, COLLUS Power Corp established many allies within our communities to help in the delivery of conservation initiatives to our customers. In 2005, our CDM activities were focused on revitalizing interest across our customer base and rebuilding relationships with media, service providers, and vendors who make it possible for consumers to access energy efficient products and services. Throughout 2006, our staff endeavored to strengthen these relationships in an effort to ensure our customers that conservation will remain an integral part of this provinces future energy landscape.

The activities over the last few years are now beginning to bear fruit. Consumers are demonstrating through their actions that they are becoming committed to becoming part of a Conservation Culture. Our staff is receiving more calls from our customers asking about energy efficient options, and our WEB page traffic has been particularly strong in the sections related to conservation activities.

While much of our activity was directed at the mass markets through programs such as: Every Kilowatt Counts (EKC); Conservation messages in partnership with the Media; and Local Promotion in partnership with community events, some key progress is being made with our Commercial / Industrial sector customers as well.

In 2006, the Town of Collingwood undertook to retrofit their traffic lights to new LED technology and have been so impressed with the savings from the project that it would be difficult to envision incandescent technology as an option in any future deployment. The project had numerous benefits apart from the dollar savings. Consumers benefit from exposure to efficient technologies and begin to see that conservation does not mean simply doing without or turning things off. In fact – we have heard many comments related to how much brighter the new technology is as compared to the old lights. Programs such as the Traffic Light replacement clearly demonstrate to the public that LED technology is not limited to just Christmas Lights, and has sparked interest by many regarding other uses for LED's.

Another very successful project we participated in was the ECO Kids program co-sponsored by the Simcoe County District School Board. The project started as a short discussion with the school board on how we could introduce conservation into the standard curriculum at the local schools. A committed representative from the School Board took the lead on the program and after securing commitments for funding from the 8 different LDC's servicing 85 elementary schools the School Board secured the services of some local talent to prepare both a student curriculum and a one day teacher training seminar which was attended by over 70 grade five teachers. This project was so encouraging, that we anticipate more school involvement in 2007 and beyond.

We look forward to a brighter future for the Province and remain dedicated to working with the Province, the OPA, the OEB, the LDC's, and private companies in the pursuit of sustainable Conservation initiatives that help support our customers.

Should you or your staff have any questions related to our comments, please contact Darius Vaiciunas from our office and he would be pleased to clarify any concerns.

Darius Vaiciunas, Load Management & Regulatory Coordinator
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Respectfully submitted,
COLLUS Power Corp.

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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 ($):	*336,980.11*	**$ 358,927**	**$ 362,543**	**$ 60,587**	**$ (11,650)**	**$ (7,920)**	**$ -**	**$ (44,633)**		**$ -**	**$ -**
Benefit to cost ratio:	*2.35*	3.39	8.67	2.57	0.00	0.00	0.00	0.00		0.00	0.00
Number of participants or units delivered:	*14,678*	*12,774*	12,768	1	1	1	0	3		0	0
Lifecycle (kWh) Savings:	*11,822,196.33*	10,736,959	8,418,734	2,318,225	0	0	0	0		0	0
Report Year Total kWh saved (kWh):	*1,355,461.18*	1,236,756	1,120,844	115,912	0	0	0	0		0	0
Total peak demand saved (kW):		216	203	13	0	0	0	0		0	0
Total kWh saved as a percentage of total kWh delivered (%):	*0.1842%*	0.3428%	0.8772%	0.2119%	0.0000%	0.0000%	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!
Peak kW saved as a percentage of LDC peak kW load (%):		0.37%	0.35%	0.02%	0.00%	0%	0%	0%		0%	0%
[1] *Report Year Gross C&DM expenditures ($):*	*213,716.81*	$ 97,332	$ 6,908	$ 34,000	$ 10,350	$ 5,120	$ -	$ 34,433	$ 6,521	$ -	$ -
[2] *Expenditures per KWh saved ($/kWh):*	0.0181	$ 0.01	$ 0.00	$ 0.01	$ -	$ -	$ -	$ -		$ -	$ -
[3] *Expenditures per KW saved ($/kW):*		$ 449.58	$ 33.98	$ 2,569.55	$ -	$ -	$ -	$ -		$ -	$ -

Utility discount rate (%):	8.57

[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 ($)
Fall Every Kilowatt Counts (EKC) Pro	$ 289,631	$ 26,954	$ 262,677	10.75	783,577	6,061,406	190	$ -
Spring Every Kilowatt Counts (EKC) I	$ 74,529	$ 10,936	$ 63,593	6.82	250,489	1,306,814	3	$ -
Special Programs & Mayors Challen	$ 45,621	$ 9,347	$ 36,273	4.88	86,778	1,050,515	11	$ 6,908
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 - Residential**	$ 409,780	$ 47,237	$ 362,543	8.67	1,120,844	8,418,734	203	$ 6,908
Residential Indirect Costs not attributable to any specific program →		$ -			*Total Residential kWh Delivered in 2006*		127,779,062.00	
Total Residential TRC Costs		$ 47,237				Residential Peak in 2006 in kW	58,193	
****Totals TRC - Residential**	**$ 409,780**	**$ 47,237**	**$ 362,543**	**8.67**				

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 ($)
Collingwood Traffic Light LED Conve	$ 99,234	$ 38,647	$ 60,587	2.57	115,911	2,318,225	13	$ 34,000
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 -**	$ 99,234	$ 38,647	$ 60,587	2.57	115,912	2,318,225	13	$ 34,000
Commercial Indirect Costs not attributable to any specific program →					*Total Commercial kWh Delivered in 2006*		54,693,394.00	
Total TRC Costs		$ 38,647				Commercial Peak in 2006 in kW	58,193	
****Totals TRC - Commercial**	**$ 99,234**	**$ 38,647**	**$ 60,587**	**2.57**				

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 ($)
School Board Conservation Program	$ -	$ 11,650	-$ 11,650	0.00	0	0	0	$ 10,350
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 -**	$ -	$ 11,650	-$ 11,650	0.00	0	0	0	$ 10,350
Institutional Indirect Costs not attributable to any specific program →					*Total Institutional kWh Delivered in 2006*		18,231,131.00	
Total TRC Costs		$ 11,650				Institutional Peak in 2006 in kW	58,193	
****Totals TRC - Institutional**	**$ -**	**$ 11,650**	**-$ 11,650**	**0.00**				

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 ($)
Power Factor & Audit Support	$ -	$ 7,920	-$ 7,920	0.00	0	0	0	$ 5,120
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 -**	$ -	$ 7,920	-$ 7,920	0.00	0	0	0	$ 5,120
Industrial Indirect Costs not attributable to any specific program →				*Total Industrial kWh Delivered in 2006*		160,041,027.00		
Total TRC Costs		$ 7,920			Industrial Peak in 2006 in kW		58,193	
****Totals TRC - Industrial**	**$ -**	**$ 7,920**	**-$ 7,920**	**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		58,193	
****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 ($)
Conservation Education	$ -	$ 14,276	-$ 14,276	0.00	0	0	0	$ 10,876
System Optimization Studies	$ -	$ 25,775	-$ 25,775	0.00	0	0	0	$ 22,775
Demand Response	$ -	$ 4,582	-$ 4,582	0.00	0	0	0	$ 782
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 -**	$ -	$ 44,633	-$ 44,633	0.00	0	0	0	$ 34,433
LDC System Indirect Costs not attributable to any specific program →				*Total Losses kWh Delivered in 2006*				
Total TRC Costs		$ 44,633			LDC Peak in 2006 in kW		58,193	
****Totals TRC - LDC System**	**$ -**	**$ 44,633**	**-$ 44,633**	**0.00**				

7. Smart Meters Program

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

Report Year Gross C&DM Expenditures ($)	6,521

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		58,193	
****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		58,193	
****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**	$ 509,014	$ 150,087	$ 358,927	3.39	$ 1,236,756	$ 10,736,959	$ 216	$ 97,332
*Any **other** Indirect Costs not attributable to any specific program*				*Total kWh Delivered in 2006*		360,744,614.00		
TOTAL ALL LDC COSTS		$ 150,087			Total Peak in 2006 in kW		58,193	
****LDC' PORTFOLIO TRC**	$ 509,014	$ 150,087	$ 358,927	3.39				
				Total kWh Delivered in 2005		375021935		

* 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:** Collingwood Traffic Light LED Conversion

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

COLLUS Power provided financial assistance to facilitate the replacement of existing incandescent traffic lights with LED traffic lights. The project was overseen by the Municipal staff with the actual work contracted to an outside company that specializes on traffic light maintenance and repair. The project was well received by the general public as a positive step towards energy efficiency by the Municipality. In all - 14 intersections had the lights and crossing signs either replaced or retrofitted to LED technology.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	ndescent 155,374 kWh per Annum		
Efficient technology:	LED 26,584 per Annum		
Number of participants or units delivered:	1.00	0	0
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 ($):*	*$ 99,233.85*		$ 99,233.85
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 500.00		$ 500.00
Incremental Measure Costs (Equipment Costs)	$ 38,147.21		$ 38,147.21
Total TRC costs:	$ 38,647.21	$ -	$ 38,647.21
Net TRC (in year CDN $):	$ 60,586.64	$ -	$ 60,586.64
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	2.57	#DIV/0!	$ 2.57

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

Cumulative Results:

Conservation Programs:

			Report Winter Demand (kW)	
Demand savings (kW):	*Summer*	13.23	13.23	
	Winter	13.23		
	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*2,318,224.68*	115,911.23	2318224.68	115911.234
			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:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Incentive:	$ 34,000.00		$ 34,000.00
	Total:	$ 34,000.00	$ -	$ 34,000.00
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 34,000.00	-	34,000.00

E. Assumptions & Comments:

When the original plan was drafted, costs were estimated based on parts and labour. The additional costs of Police services for Highway safety during the traffic light conversion although a valid expense, did increase the estimated payback period of the project. Overall, the project still managed to achieve a payback period of under 1 year.

[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:** 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. These programs continue to help increase public awareness and demand for energy efficient products. As a result of these cupon programs more and more Retail Outlets are now stocking EE products on their shelves as part of their regular sales activities.

Measure(s):

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Base case technology:	0	5 Watt Christmas Lights	ndescent Mini Christmas Li	Standard Thermostats	Basic Light Switch	Basic Light Switch
Efficient technology:	CFLs	LED Christmas Lights	.ED Christmas Lights (Mini	Progr. Thermostats	Dimmer Switch	Motion Sensors
Number of participants or units delivered:	6,638.00	1,217.00	1,217.00	152.00	120.00	2.00
Measure life (years):	4.00	30.00	30.00	18.00	10.00	20.00
Number of participants or units 2005		116	115			
Number of Participants or units delivered life-to-date	6,638.00	1,333.00	1,332.00	152.00	120.00	2.00

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
TRC Benefits ($):	*$ 289,631.00*		$ 289,631.00
Measure's Costs ($):			
Utility program cost (less incentives):	$ 1,200.00		$ 1,200.00
Incremental Measure Costs (Equipment Costs)	$ 25,754.00		$ 25,754.00
Total TRC costs:	$ 26,954.00	$ -	$ 26,954.00
Net TRC (in year CDN $):	$262,677.00	$ -	$ 262,677.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	10.75	#DIV/0!	$ 10.75

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	0.00	Report Winter Demand (kW)	
	Winter	189.78	189.78	
	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*6,061,406.00*	783,577.00	6061406	783577
			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:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Incentive:	$ -		$ -
	Total:	$ -	$ -	$ -
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ -	-	-

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 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 Fan	Timers	Progr. Thermostats	0.00	0.00
Number of participants or units delivered:	2,457.00	24.00	40.00	55.00	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	869	19	35	40		
Number of Participants or units delivered life-to-date	3,326.00	43.00	75.00	95.00	0.00	0.00

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
TRC Benefits ($):	$ *74,528.55*	$ 50,513.00	$ 125,041.55
Measure's Costs ($):			
Utility program cost (less incentives):	$ 1,200.00	$ 2,730.00	$ 3,930.00
Incremental Measure Costs (Equipment Costs)	$ 9,735.75	$ 5,871.00	$ 15,606.75
Total TRC costs:	$ 10,935.75	$ 8,601.00	$ 19,536.75
Net TRC (in year CDN $):	$63,592.80	$ 41,912.00	$ 105,504.80
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	6.82	$ 5.87	$ 6.40

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	2.78	Report Winter Demand (kW)	
	Winter	0.00	2.78	
	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*1,306,813.68*	250,488.89	2392050.88	369194.991
			2005 Lifecycle	*2005 Annual*
			1085237.2	118706.1
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:*	$ -	$ 6,230.00	$ 6,230.00
	Incentive:	$ -		$ -
	Total:	$ -	$ 6,230.00	$ 6,230.00
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ -	6,230.00	6,230.00

E. Assumptions & Comments:

Also included the "Lighten Your Electricity Bill" results from 2005

[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:** Special Programs & Mayors Challenge

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

Each year the Mayor for the Town of Collingwood holds a special function. COLLUS Power donated 240 packages promoting conservation initiatives. The package consisted of a Two Pack of 15 watt CFL's, a canvas carry-all grocery bag with a Conservation message printed on the outside, and an indoor timer. Additionally - a few larger organizations were assisted in their endeavours to change out Christmas Lights.

Measure(s):

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Base case technology:	Incandescent Bulb	0.00	0.00	0.00	0.00	0.00
Efficient technology:	CFLs	Indoor Timer	LED Christmas Lights	0.00	0.00	0.00
Number of participants or units delivered:	480.00	240.00	126.00	0.00	0.00	0.00
Measure life (years):	4.31	20.00	30.00	0.00	0.00	0.00
Number of participants or units 2005			706			
Number of Participants or units delivered life-to-date	480.00	240.00	126.00	0.00	0.00	0.00

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
TRC Benefits ($):	$ 45,620.63	$ 26,582.36	$ 72,202.99
Measure's Costs ($):			
Utility program cost (less incentives):	$ 5,544.00	$ 3,162.90	$ 8,706.90
Incremental Measure Costs (Equipment Costs)	$ 3,803.40		$ 3,803.40
Total TRC costs:	$ 9,347.40	$ 3,162.90	$ 12,510.30
Net TRC (in year CDN $):	$36,273.23	$ 23,419.46	$ 59,692.69
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	4.88	$ 8.40	$ 5.77

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

Cumulative Results:

Conservation Programs:

			Report Winter Demand (kW)	
Demand savings (kW):	*Summer*	0.00		
	Winter	10.70	0.00	
	lifecycle	*in year*	*Cumulative Lifecycle*	*Cumulative Annual Savings*
Energy saved (kWh):	*1,050,514.77*	86,777.96	1050514.769	86777.95896
			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 TRC4	*Incremental O&M:*	$ 6,172.00	$ 29,397.95	$ 35,569.95
	Incentive:	$ 735.84		$ 735.84
	Total:	$ 6,907.84	$ 29,397.95	$ 36,305.79
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 6,907.84	29,397.95	36,305.79

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 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:** School Board Conservation Programs

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

The local Public School Board District Expressed some interest in pursuing two main initiatives in 2006. Participate in an audit process for two of their schools through the Toronto Conservation Authority, and update the Grade 5 curriculum to add the Eco Schools. These programs were seen as excellent opportunities to assist the School Board displaying leadership both inside and outside of the classroom. COLLUS Power assisted with financial contributions on both projects. The ECHO Schools project was very well received, with 8 different LDC's servicing the School Board District, and over 70 teachers taking part in the training.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	Conservation Culture		
Number of participants or units delivered:	1.00	0	0
Measure life (years):	0.00		
Number of participants or units 2005	0	0	0
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):	$ 11,650.00		$ 11,650.00
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 11,650.00	$ -	$ 11,650.00
Net TRC (in year CDN $):	-$ 11,650.00	$ -	-$ 11,650.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	#DIV/0!	$ -

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	0.00	Report Winter 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:*	$ -		$ -
	Incremental O&M:	$ 10,350.00		$ 10,350.00
	Incentive:	$ -		$ -
	Total:	$ 10,350.00	$ -	$ 10,350.00
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 10,350.00	-	10,350.00

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:** Conservation Education

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

In order to foster a Conservation Culture across our territory, COLLUS Power believes that the media must play a stong part in spreading the message. As a result, we have established an annual plan with both the local FM station and the local Cable Telvision station to help keep the message of Conservation in the public forum on a daily basis. In addition to this ongoing delivery of the Conservation message, we work with the local papers as required to bolster specific programs as required. Given that these costs are integral to the success of all programs and not just one specific deliverable, we have chosen to list them as a separate line item in the annual report. In 2005, COLLUS worked collectively with the Cornerstone group of LDC's to establish a WEB page containing detailed information on conservation for our customer base. This WEB page is and has been well received.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	Conservation Culture		
Number of participants or units delivered:	1.00	0	0
Measure life (years):	0.00		
Number of participants or units 2005	1	0	0
Number of Participants or units delivered life-to-date	2.00		

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 14,276.00	$ 21,244.73	$ 35,520.73
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 14,276.00	$ 21,244.73	$ 35,520.73
Net TRC (in year CDN $):	-$ 14,276.00	-$ 21,244.73	-$ 35,520.73
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	$ -	$ -

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

Cumulative Results:

Conservation Programs:

			Report Winter Demand (kW)	
Demand savings (kW):	*Summer*	0.00		
	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:

	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:*	$ 10,876.00	$ 21,244.73	$ 32,120.73
	Incentive:	$ -		$ -
	Total:	$ 10,876.00	$ 21,244.73	$ 32,120.73
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 10,876.00	21,244.73	32,120.73

E. **Assumptions & Comments:**

COLLUS has entered into a partnership with the local Library board offering appliance monitors for customers to borrow using their library cards. The project will be a great support to the planned summer projects in 2007.

[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:** Power Factor & Audit Support

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

This year we spent a significant amount of time working with our industrial customers to help them set and achieve their own internal targets. One of our customers in particular seconded the assistance of a consulting firm that helped them form an in-house conservation team that could take responsibility for identifying and sourcing funds for efficient operations and technologies. We are finding repeatedly, that introducing new concepts and technologies in the Commercial / Industrial market place is a long term process. Given that new technologies can have significant impacts (both good and bad) on production, changes need to be studied carefully and implemntation must be planned very carefully to ensure that production schedules are not compromised.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	istrial Conservation Improvements		
Number of participants or units delivered:	1.00	0	0
Measure life (years):	0.00		
Number of participants or units 2005	2	0	0
Number of Participants or units delivered life-to-date	3.00		

B.

TRC Results:	**Reporting Year**	**2005 TRC Results**	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 7,920.00	$ 2,219.95	$ 10,139.95
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 7,920.00	$ 2,219.95	$ 10,139.95
Net TRC (in year CDN $):	-$ 7,920.00	-$ 2,219.95	-$ 10,139.95
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 Winter 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:*	$ -		$ -
	Incremental O&M:	$ 5,120.00	$ 2,219.95	$ 7,339.95
	Incentive:	$ -		$ -
	Total:	$ 5,120.00	$ 2,219.95	$ 7,339.95
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 5,120.00	2,219.95	7,339.95

E. Assumptions & Comments:

COLLUS Power has been working with our customers for many years helping them with their Power Factor and overall electricity use. As noted in the 2005 annual report, most of the "low hanging fruit" was picked a long time ago, generally leaving only high cost projects that entail long paybacks. Our focus continues to be on working with our customers to make conservation part of their daily production planning process. .
All of our Industrial Customers with loads over 100 KW are equipped with Interval meters and have been granted access to the data from their meters on a regular basis through a WEB based product provided by Utilismart. A review of WEB activity has demonstrated however, that access to the system has significantly dropped once customers have gained an initial understanding of their internal load patterns.

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:** System Optimization Studies

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

System Optimization is a program involving an in-depth modelling of the loads across the distribution system, in an attempt to discover imbalances and methods by which overall electricity losses can be reduced. Each Fuse, Wire, Transformer, and Distribution Substation has resistive loads that consume electricity in proportion to the loads passed through them. In 2005, we began phase one of the System Optimization process. Phase one involved the hiring of an experienced consultant to do field inspections and computer modelling of the system. Phase two provided the consultant an opportunity to complete the study accross the balance of our territory. Phase three will involve the implementation of recomendations in a priority order starting with the most cost effective options.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	Lower Line Losses		
Number of participants or units delivered:	1.00	0	0
Measure life (years):	0.00		
Number of participants or units 2005	1	0	0
Number of Participants or units delivered life-to-date	2.00		

B. **TRC Results:**

	Reporting Year	2005 TRC Results	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 25,775.00	$ 54,575.60	$ 80,350.60
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 25,775.00	$ 54,575.60	$ 80,350.60
Net TRC (in year CDN $):	-$ 25,775.00	-$ 54,575.60	-$ 80,350.60
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 Winter 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:*	$ 22,775.00	$ 54,575.60	$ 77,350.60
	Incentive:	$ -		$ -
	Total:	$ 22,775.00	$ 54,575.60	$ 77,350.60
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 22,775.00	54,575.60	77,350.60

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:** Demand Response

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

COLLUS Power began deploying a VHF Water Heater Load Control System starting in 1995 as part of an overall Conservation program targeted to provide capacity relief on the Transmission System feeding the area. The results were so impressive that we expanded the system to provide control services for four other LDC's. Deregulation and the associated rate mechanisms changed the landscape significantly, requiring the system to be shut down in May 2002. In total, the system had the installed ability to control over 5 Mw of load across the four LDC's. COLLUS upgraded some Software and Central Control technology in 2005 and used very little CDM funding in 2006 (mainly to maintain communications infrastructure). The system was successfully used to respond to a public appeal from the IESO in 2006. In 2007, the systems will be carefully reviewed to be ready for the summer programs with the OPA.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	Load Control		
Number of participants or units delivered:	1.00	0	0
Measure life (years):	0.00		
Number of participants or units 2005	0	0	0
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):	$ 4,582.00	$ 9,237.74	$ 13,819.74
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 4,582.00	$ 9,237.74	$ 13,819.74
Net TRC (in year CDN $):	-$ 4,582.00	-$ 9,237.74	-$ 13,819.74
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 Winter 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):	1200

Peak hours dispatched in year (hours):		6
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:*	$ 782.00	$ 9,237.74	$ 10,019.74
	Incentive:	$ -		$ -
	Total:	$ 782.00	$ 9,237.74	$ 10,019.74
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 782.00	9,237.74	10,019.74

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:** Smart Meter Pilot Partnership - OUSM

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

COLLUS Power is an active participant in the Ontario Utilities Smart Metering Work Group (OUSM). The prime goal of the group is to coordinate and document detailed reviews of Smart Meter Pilot Projects, and provide guidance to the Minister on key technical issues surrounding the implementation of Smart Metering. The group consists of of Utilities, Meter Manufacturers, Software Vendors, and Retailers. By working together, we have been able to limit the number of pilot projects and at the same time delve deeply into all aspects of evaluation. The results of our analysis have been made available to the Ministry of Energy Staff, as well as all the members. Our CDM spending on this project is limited to our membership fees.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	0		
Efficient technology:	Smart Meters		
Number of participants or units delivered:	1.00	0	0
Measure life (years):	0.00		
Number of participants or units 2005	1	0	0
Number of Participants or units delivered life-to-date	2.00		

B. **TRC Results:**

	Reporting Year	2005 TRC Results	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -		$ -
[2] *TRC Costs ($):*			
Utility program cost (less incentives):	$ 6,521.00	$ 1,636.00	$ 8,157.00
Incremental Measure Costs (Equipment Costs)	$ -		$ -
Total TRC costs:	$ 6,521.00	$ 1,636.00	$ 8,157.00
Net TRC (in year CDN $):	-$ 6,521.00	-$ 1,636.00	-$ 8,157.00
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 Winter 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:*	$ 6,521.00	$ 1,636.00	$ 8,157.00
	Incentive:	$ -		$ -
	Total:	$ 6,521.00	$ 1,636.00	$ 8,157.00
Utility indirect costs ($):	*Incremental capital:*	$ -		$ -
	Incremental O&M:	$ -		$ -
	Total:	$ -	$ -	$ -
Total Utility Cost of Program		$ 6,521.00	1,636.00	8,157.00

E. Assumptions & Comments:

COLLUS Power plans to continue working with the OUSM work group in an effort to ensure that as Smart Meter Deployment ramps up across the Province, the LDC's will be able to continue seamlessly provide settlement services for our customers. Another critical factor will be the ability to maintain operational settlements with the IESO, the Retailers, the Generators, and the OPA. By working together with the OUSM group, we bring many industry experts to the table, and increase our chances of a successful rollout of Smart Meters accross the Province which will undoubtedly become the cornerstone of many CDM projects in years to come.

[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