



## *Cornerstone Hydro Electric Concepts Association Inc.*

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

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

#### **1.0 Introduction:**

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

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

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

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

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

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

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

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

## 2.0 CHEC Members:

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

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

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

## 3.0 Evaluation of the CDM Plan:

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

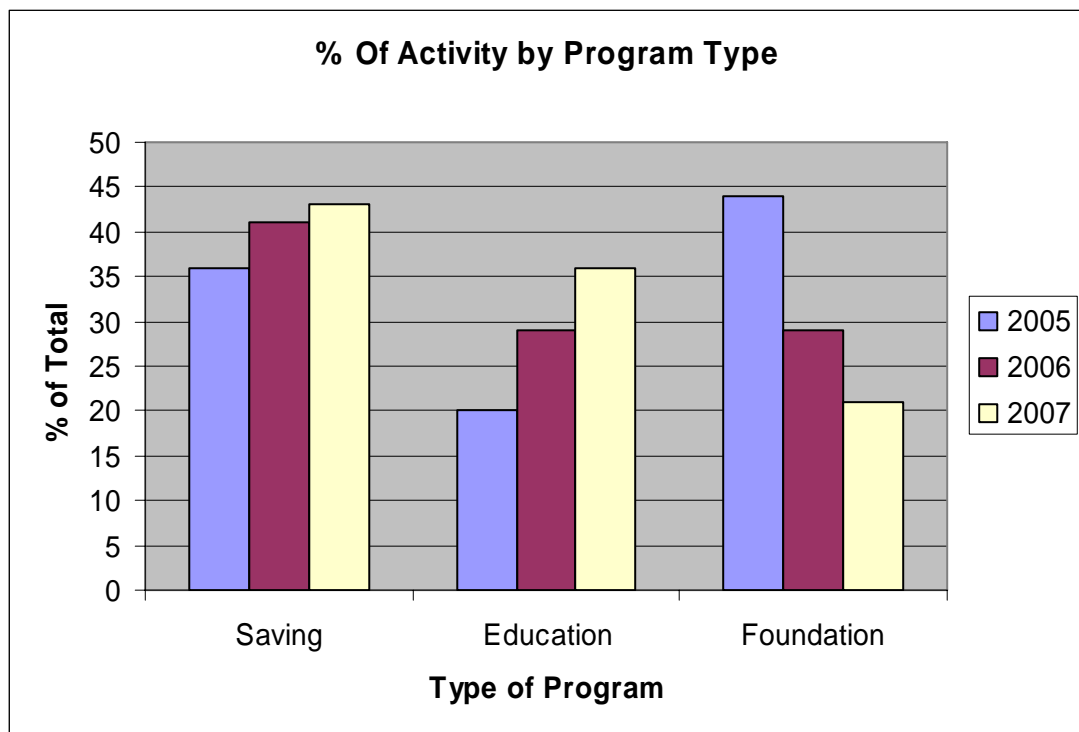
- Savings: Delivery of energy saving products or processes: coupons, rebates, free products, etc.
- Education: Providing general energy management information through such activities as: website development, workshops, brochures, school programs, etc,
- Foundation: Preparatory work for future programs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

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

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

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

Figure 1



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## **6.0 Conclusion:**

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

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

## 7.0 Appendices:

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Wednesday, March 18, 2007

**Re: CDM Third Tranche Funding, COLLUS Power Corp.**

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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 is excited to be a part of the increasing deployment of Conservation programs across the province. With the initial investment by the Local Distribution Companies into re-establishing Conservation as a viable solution to our overall supply mix, the Ontario Power Authority has been able to leverage the progress and customer acceptance to develop new and exciting programs that will continue to benefit our customers for years to come.

As noted in our year end report for 2006, consumers are demonstrating through their actions that they are becoming committed to growth of a Conservation Culture. Our staff continues to receive calls from our customers asking about energy efficient options, and our WEB page traffic continues to see a growth in hits to sections related to conservation.

Through 2007, our conservation efforts have begun to focus on how we can leverage the remaining funding from our Third Tranche Conservation budgets, to increase the future acceptance of new and exciting OPA Conservation Programs. The availability of funding from the OPA for certain activities such as the coupon campaigns has forced us to change plans and re-allocate funding to new opportunities. Our goal is to help ensure that all the monies spent both through the OPA programs and the Third Tranche budgets are contributing to the ongoing development of the Culture of Conservation. Much of the ground work provided by education and advertising through our available funding has helped in the net uptake on the various incentive based programs developed by the OPA.

We are also encouraged by the diversity of calls we receive from our customers. More and more we are getting calls from our customers on detailed questions related to specific process opportunities. This is a very encouraging sign as it demonstrates that the Ontario Consumers have moved beyond the simple options such as CFL and LED lighting replacements.

COLLUS Power requested and received an extension into 2008 to complete the disbursement of our Third Tranche funding. This extension was a welcome one as we had been working with a number of consumers and suppliers on specific projects that simply needed more time for all the parties to gain internal approvals to commit and move forwards. In light of the extension, this annual report will show that not all the funds had

**"TOGETHER WE HELP OUR TOWN"**



been spent as of December 31, 2007. We are pleased to say however that the balance of the funding has been allocated to specific projects, and we anticipate that with the additional time made available through the OEB Decision, we will be able to ensure that the funds are allocated and spent effectively and prudently on programs that will help all of our customers firmly adopt conservation as an integral part of their day to day living.

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 me at your convenience and I would be pleased to clarify any concerns.

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

*Darius Vaiciunas*

Darius Vaiciunas  
Load Management & Regulatory Coordinator  
COLLUS Power Corp.

## Appendix A - Evaluation of the CDM Plan

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

	<sup>5</sup> Cumulative Totals Life-to-date	Total for 2007	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	502,907.66	\$ 158,008	\$ 227,607	\$ (30,687)	\$ -	\$ (7,920)	\$ -	\$ (6,710)		\$ (24,282)	\$ -
<i>Benefit to cost ratio:</i>	2.46	2.53	9.21	0.17	0.00	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>	16,790	2,112	2,053	57	0	0	0	1		1	0
<i>Lifecycle (kWh) Savings:</i>	18,770,164.83	6,947,969	6,871,073	76,896	0	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	1,791,552.58	436,092	420,712	15,380	0	0	0	0		0	0
<i>Total peak demand saved (kW):</i>		251	235	17	0	0	0	0		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.16%	0.12%	0.31%	0.02%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.40%	0.38%	0.03%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%
<sup>1</sup> <i>Report Year Gross C&amp;DM expenditures (\$):</i>	293,153.81	\$ 71,280	\$ 13,074	\$ 31,214	\$ -	\$ -	\$ -	\$ 6,710	\$ -	\$ 20,282	\$ -
<sup>2</sup> <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.02	\$ 0.01	\$ 0.00	\$ 0.41	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<sup>3</sup> <i>Expenditures per kW saved (\$/kW):</i>		\$ 283.65	\$ 55.73	\$ 1,869.98	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Utility discount rate (%):</i>	8.57										

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

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

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

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

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

# Appendix C - Program and Portfolio Totals

Report Year: 2007

## 1. Residential Programs

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

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

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle (kWh) Savings	Total Peak	Report Year
	(PV)	TRC Costs (PV)			Total kWh Saved		Demand (kW) Saved	Gross C&DM Expenditures (\$)
Conservation Product Promotions (R)	\$ 255,315	\$ 21,135	\$ 234,181	12.08	420,712	6,871,073	235	\$ 8,600
Kill-A-Watt Library Lending Program	\$ -	\$ 6,574	\$ 6,574	0.00	0	0	0	\$ 4,474
Fall Every Kilowatt Counts (EKC) Prc	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Spring Every Kilowatt Counts (EKC) i	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B - Residential</b>	<b>\$ 255,315</b>	<b>\$ 27,709</b>	<b>\$ 227,607</b>	<b>9.21</b>	<b>420,712</b>	<b>6,871,073</b>	<b>235</b>	<b>\$ 13,074</b>
Residential Indirect Costs not attributable to any specific program	\$ -				Total Residential kWh Delivered in 2007			
						134270531		
<b>Total Residential TRC Costs</b>		<b>\$ 27,709</b>			System Peak in 2007		<b>62,291</b>	
<b>**Totals TRC - Residential</b>	<b>\$ 255,315</b>	<b>\$ 27,709</b>	<b>\$ 227,607</b>	<b>9.21</b>				

## 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		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle (kWh) Savings	Total Peak	Report Year
	(PV)	TRC Costs (PV)			Total kWh Saved		Demand (kW) Saved	Gross C&DM Expenditures (\$)
Audit Support	\$ 6,173	\$ 36,861	\$ 30,687	0.17	15,379	76,896	3	\$ 31,214
Collingwood Traffic Light LED Conve	\$ -	\$ -	\$ -	0.00	0	0	13	\$ -
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	<b>\$ 6,173</b>	<b>\$ 36,861</b>	<b>\$ 30,687</b>	<b>0.17</b>	<b>15,380</b>	<b>76,896</b>	<b>17</b>	<b>\$ 31,214</b>
Commercial Indirect Costs not attributable to any specific program	\$ -				Total Commercial kWh Delivered in 2007			
						67135265		
<b>Total TRC Costs</b>		<b>\$ 36,861</b>			System Peak in 2007		<b>62,291</b>	
<b>**Totals TRC - Commercial</b>	<b>\$ 6,173</b>	<b>\$ 36,861</b>	<b>\$ 30,687</b>	<b>0.17</b>				

## 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		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle (kWh) Savings	Total Peak	Report Year
	(PV)	TRC Costs (PV)			Total kWh Saved		Demand (kW) Saved	Gross C&DM Expenditures (\$)
School Board Conservation Program.	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$ -</b>
Institutional Indirect Costs not attributable to any specific program	\$ -				Total Institutional kWh Delivered in 2007			
						17667175		
<b>Total TRC Costs</b>		<b>\$ -</b>			System Peak in 2007		<b>62,291</b>	
<b>**Totals TRC - Institutional</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.00</b>				

#### 4. Industrial Programs

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

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

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)			Total kWh Saved			
Power Factor & Audit Support	\$ -	\$ 7,920	-\$ 7,920	0.00	0	0	0	\$ -
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	\$ -	\$ 7,920	-\$ 7,920	0.00	0	0	0	\$ -
Industrial Indirect Costs not attributable to any specific program					Total Industrial kWh Delivered in 2007		134270531	
<b>Total TRC Costs</b>		\$ 7,920			System Peak in 2007		62,291	
<b>**Totals TRC - Industrial</b>	\$ -	\$ 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		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)			Total kWh Saved			
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				
<b>*Totals App. B -</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Agricultural Indirect Costs not attributable to any specific program					Total Agricultural kWh Delivered in 2007		0.0001	
<b>Total TRC Costs</b>		\$ -			System Peak in 2007		62,291	
<b>**Totals TRC - Agricultural</b>	\$ -	\$ -	\$ -	0.00				

#### 6. LDC System Programs

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

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

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year	Lifecycle	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)			Total kWh Saved			
Conservation Education & Partnerships	\$ -	\$ 6,710	-\$ 6,710	0.00	0	0	0	\$ 6,710
Conservation Education	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
System Optimization Studies	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Demand Response	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	\$ -	\$ 6,710	-\$ 6,710	0.00	0	0	0	\$ 6,710
LDC System Indirect Costs not attributable to any specific program					Total Losses kWh Delivered in 2007		0.0001	
<b>Total TRC Costs</b>		\$ 6,710			System Peak in 2007		62,291	
<b>**Totals TRC - LDC System</b>	\$ -	\$ 6,710	-\$ 6,710	0.00				

## 7. Smart Meters Program

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

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

## 8. Other #1 Programs

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

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

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)						
Renewable Energy Demonstration P	\$ -	\$ 24,282	-\$ 24,282	0.00	0	0	0	\$ 20,282
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	\$ -	\$ 24,282	-\$ 24,282	0.00	0	0	0	\$ 20,282
Other #1 Indirect Costs not attributable to any specific program					Total Other kWh Delivered in 2007		0.0001	
<b>Total TRC Costs</b>		\$ 24,282			System Peak in 2007		62,291	
<b>**Totals TRC - Other #1</b>	\$ -	\$ 24,282	-\$ 24,282	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		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)						
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B -</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Other #2 Indirect Costs not attributable to any specific program					Total Other kWh Delivered in 2007		0.0001	
<b>Total TRC Costs</b>		\$ -			System Peak in 2007		62,291	
<b>**Totals TRC - Other #2</b>	\$ -	\$ -	\$ -	0.00				

## LDC's CDM PORTFOLIO TOTALS

	TRC Benefits		\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
	(PV)	TRC Costs (PV)						
<b>*TOTALS FOR ALL APPENDIX B</b>	\$ 261,489	\$ 103,481	\$ 158,008	2.53	\$ 436,092	\$ 6,947,969	\$ 251	\$ 71,280
Any other Indirect Costs not attributable to any specific program					Total kWh Delivered in 2006		353,343,502	
<b>TOTAL ALL LDC COSTS</b>		\$ 103,481			System Peak in 2007		62,291	
<b>**LDC' PORTFOLIO TRC</b>	\$ 261,489	\$ 103,481	\$ 158,008	2.53				
					Total kWh Delivered 05/06		735,766,549	

\* 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: Audit Support

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

Assisting our Commercial and Industrial Customers gain a better understanding of issues when problems arise is the first step to helping them select where to invest in new energy efficient technologies. To assist in performing this task, COLLUS Power has purchased a Power Monitoring Device for analyzing Commercial and Industrial electrical issues. Additionally, a number of smaller customers have undertaken activities which due to their size, did not qualify for the OPA Electricity Retrofit Incentive Program. In order to maintain the support for conservation both from local contractors, and customers, COLUS Power provided incentive payments using the ERIP applications as the source for detailed customer activities.

Measure(s):

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Base case technology:	0	T12 Lighting (2 Lamp)	Fluorescent Lights (4 L	T12 Lights (4 Lamp)	0.00	0.00
Efficient technology:	Power Monitoring and Analy	T8 Lighting (2 Lamp)	Fluorescent Lights (4 La	T8 HP Lights (4 Lamp)	Chiller & Boiler Efficiency Study	0.00
Number of participants or units delivered:	1.00	12.00	3.00	40.00	1.00	0.00
Measure life (years):	0.00	5.00	5.00	5.00	0.00	0.00
Number of participants/units 05&06	0				0	
Number of Participants or units delivered life-to-date	1.00	12.00	3.00	40.00	1.00	0.00

	Reporting Year	Total 05&06 TRC Results	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 6,173.40	\$ -	\$ 6,173.40
<sup>2</sup> Measure's Costs (\$):			
Utility program cost (less incentives):	\$ 33,778.00	\$ -	\$ 33,778.00
Participant cost:	\$ 3,082.50	\$ -	\$ 3,082.50
Total TRC costs:	\$ 36,860.50	\$ -	\$ 36,860.50
<u>Net TRC (in year CDN \$):</u>	<u>-\$30,687.10</u>	<u>\$ -</u>	<u>-\$ 30,687.10</u>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.17	#DIV/0!	\$ 0.17

Results: (one or more category may apply)			Cumulative Results:	
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer	3.29	Report Summer Demand (kW)	
	Winter	3.46	3.29	
Energy saved (kWh):	lifecycle	76,896.00	Cumulative Lifecycle	Cumulative Annual Savings
	in year	15,379.20	76896	15379.2
			Total 05&06 Lifecycle	05&06 Annual
			0	0
Other resources saved :				
	Natural Gas (m3):	0		0
	Water (l)	0		0

**Demand Management Programs:**

Controlled load (kW):

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

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

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

**Demand Response Programs:**

Dispatchable load (kW):

Peak hours dispatched in year (hours):

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

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

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

**Line Loss Reduction Programs:**

Peak load savings (kW):

Energy savngs (kWh):  lifecycle  in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

D. Program Costs*:		Total 05&06 Costs	Cumulative Life to Date
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	0 Incremental O&M:	\$ 30,518.00	\$ 30,518.00
	Incentive:	\$ 696.00	\$ 696.00
	Total:	\$ 31,214.00	\$ 31,214.00
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -
	Total:	\$ -	\$ -
<b>Total Utility Cost of Program</b>		<b>\$ 31,214.00</b>	<b>\$ 31,214.00</b>

**E. Comments:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Conservation Education & Partnerships

**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 strong part in spreading the message. As a result, we have established an annual plan with both the local FM station and the local Cable Television station to help keep the message of Conservation in the public forum on a daily basis. We have also purchased and distributed a number of Power Monitoring devices for customers to borrow through the libraries and as promotional items. 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.

**Measure(s):**

	Measure 1	Measure 2	Measure 3	Measure 4
Base case technology:	0	0.00	0.00	0.00
Efficient technology:	Advertising	0.00	0.00	0.00
Number of participants or units delivered:	1.00	0.00	0.00	0.00
Measure life (years):	0.00	0.00	0.00	0.00
Number of participants/units 05&06	2			
Number of Participants or units delivered life-to-date	3.00	0.00	0.00	0.00

<b>TRC Results:</b>	<b>Reporting Year</b>	<b>Total 05&amp;06 TRC Results</b>	<b>Life-to-date TRC Results:</b>
<sup>1</sup> TRC Benefits (\$):	\$ -	\$ -	\$ -
<sup>2</sup> Measure's Costs (\$):			
Utility program cost (less incentives):	\$ 6,710.00	\$ -	\$ 6,710.00
Participant cost:	\$ -	\$ -	\$ -
Total TRC costs:	\$ 6,710.00	\$ -	\$ 6,710.00
<b>Net TRC (in year CDN \$):</b>	<b>-\$6,710.00</b>	<b>\$ -</b>	<b>-\$ 6,710.00</b>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	\$ -	\$ -

<b>C. Results: (one or more category may apply)</b>				<b>Cumulative Results:</b>	
<b>Conservation Programs:</b>					
Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)		
	Winter	0.00	0.00		
			Cumulative Lifecycle	Cumulative Annual Savings	
Energy saved (kWh):	lifecycle	0.00	0	0	
			Total 05&06 Lifecycle	05&06 Annual	
			0	0	
Other resources saved :					
Natural Gas (m3):		0	0		
Water (l)		0	0		
<b>Demand Management Programs:</b>					
Controlled load (kW)					
Energy shifted On-peak to Mid-peak (kWh):					
Energy shifted On-peak to Off-peak (kWh):					
Energy shifted Mid-peak to Off-peak (kWh):					
<b>Demand Response Programs:</b>					
Dispatchable load (kW):					
Peak hours dispatched in year (hours):					
<b>Power Factor Correction Programs:</b>					
Amount of KVar installed (KVar):					



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

**Line Loss Reduction Programs:**

Peak load savings (kW):   
lifecycle in year  
 Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):   
 Energy generated (kWh):   
 Peak energy generated (kWh):   
 Fuel type:

**Other Programs (specify):**

Metric (specify):

<b>D. <u>Program Costs</u>*</b>		<b>Total 05&amp;06 Costs</b>	<b>Cumulative Life to Date</b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ 6,710.00	\$ 6,710.00
	Incentive:	\$ -	\$ -
	Total:	\$ 6,710.00	\$ 6,710.00
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -
	Total:	\$ -	\$ -
Total Utility Cost of Program		\$ 6,710.00	\$ 6,710.00

**E. Comments:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. Name of the Program: Conservation Product Promotions (Residential)

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

In addition to this ongoing delivery of the Conservation message, we work with local organizations to provide Conservation Products for gifts or incentives at various community functions. 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.

Measure(s):

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6
Base case technology:	Incandescent Bulbs	Standard Incandescent Bulb	Standard Switch	Yard Lighting	Standard Switch	Leaky Thermal Envelope
Efficient technology:	CFL Replacements	CFL Bulb	Outdoor Timer	Out Door Solar Lights	Indoor Light Timer	Weather Stripping & Draft Seal Kits
Number of participants or units delivered:	1,020.00	500.00	10.00	10.00	10.00	500.00
Measure life (years):	4.31	3.45	20.00	0.00	20.00	25.00
Number of participants/units 05&06	480	240	126		240	
Number of Participants or units delivered life-to-date	1,500.00	500.00	10.00	10.00	250.00	500.00

B.	TRC Results:	Reporting Year		Total 05&06 TRC Results	Life-to-date TRC Results:
		<sup>1</sup> TRC Benefits (\$):	\$	255,315.14	\$ 72,202.99
<sup>2</sup> Measure's Costs (\$):					
	Utility program cost (less incentives):	\$	3,256.00	\$ 8,706.90	\$ 11,962.90
	Participant cost:	\$	17,878.50	\$ 3,803.40	\$ 21,681.90
	Total TRC costs:	\$	21,134.50	\$ 12,510.30	\$ 33,644.80
	Net TRC (in year CDN \$):		\$234,180.64	\$ 59,692.69	\$ 293,873.33
	Benefit to Cost Ratio (TRC Benefits/TRC Costs):		12.08	\$ 5.77	\$ 9.73

C. Results: (one or more category may apply)			Cumulative Results:	
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer	0.00	Report Summer Demand (kW)	
	Winter	234.60	0.00	
Energy saved (kWh):	lifecycle	6,871,072.50	Cumulative Lifecycle	Cumulative Annual Savings
	in year	420,712.20	7921587.269	507490.159
			Total 05&06 Lifecycle	05&06 Annual
			1050514.769	86777.95896
Other resources saved :				
	Natural Gas (m3):	0	0	
	Water (l)	0	0	

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW): \_\_\_\_\_

	<i>lifecycle</i>	<i>in year</i>
Energy savngs (kWh):		

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW): \_\_\_\_\_  
 Energy generated (kWh): \_\_\_\_\_  
 Peak energy generated (kWh): \_\_\_\_\_  
 Fuel type: \_\_\_\_\_

**Other Programs (specify):**

Metric (specify): \_\_\_\_\_

			<u>Total 05&amp;06 Costs</u>	<u>Cumulative Life to Date</u>
<b>D. <u>Program Costs*</u>:</b>				
Utility direct costs (\$):	Incremental capital:	\$ -	-	\$ -
	Incremental O&M:	\$ 8,600.00	\$ 35,569.95	\$ 44,169.95
	Incentive:	\$ -	\$ 735.84	\$ 735.84
	Total:	\$ 8,600.00	\$ 36,305.79	\$ 44,905.79
Utility indirect costs (\$):	Incremental capital:	\$ -	-	\$ -
	Incremental O&M:	\$ -	-	\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ 8,600.00	36,305.79	44,905.79

**E. Comments:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

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

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

The IPSP is placing a significant amount of dependancy on our future supply options in the field of Renewable Energy. In order to foster greater understanding and acceptance of the technologies, COLLUS Power has entered into a partnership with a local High School and a Renewable Energy supplier. The program involves the students as part of their curriculum, assembling a mobile trailer which will contain a Solar Panel, a small Wind Generator, and all the components required to make the demonstration unit operable.

**Measure(s):**

	Measure 1	Measure 2	Measure 3	Measure 4
Base case technology:	0	0.00	0.00	0.00
Efficient technology:	Solar & Wind Power	0.00	0.00	0.00
Number of participants or units delivered:	1.00	0.00	0.00	0.00
Measure life (years):	0.00	0.00	0.00	0.00
Number of participants/units 05&06	0			
Number of Participants or units delivered life-to-date	2.00	0.00	0.00	0.00

B. <b>TRC Results:</b>	Reporting Year	Total 05&06 TRC	Life-to-date TRC
		Results	Results:
<sup>1</sup> TRC Benefits (\$):	\$ -	\$ -	\$ -
<sup>2</sup> Measure's Costs (\$):			
Utility program cost (less incentives):	\$ 24,282.00	\$ -	\$ 24,282.00
Participant cost:	\$ -	\$ -	\$ -
Total TRC costs:	\$ 24,282.00	\$ -	\$ 24,282.00
Net TRC (in year CDN \$):	-\$24,282.00	\$ -	-\$ 24,282.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	#DIV/0!	\$ -

C. <b>Results: (one or more category may apply)</b>				<b>Cumulative Results:</b>	
<b>Conservation Programs:</b>					
Demand savings (kW):	Summer	0.00		Report Summer Demand (kW)	
	Winter	0.00		0.00	
Energy saved (kWh):	lifecycle		in year	Cumulative Lifecycle	Cumulative Annual Savings
	0.00		0.00	0	0
				Total 05&06 Lifecycle	05&06 Annual
				0	0
Other resources saved :					
Natural Gas (m3):		0			0
Water (l)		0			0
<b>Demand Management Programs:</b>					
Controlled load (kW)					
Energy shifted On-peak to Mid-peak (kWh):					
Energy shifted On-peak to Off-peak (kWh):					
Energy shifted Mid-peak to Off-peak (kWh):					
<b>Demand Response Programs:</b>					
Dispatchable load (kW):					
Peak hours dispatched in year (hours):					
<b>Power Factor Correction Programs:</b>					
Amount of KVar installed (KVar):					
Distribution system power factor at beginning of year (%):					
Distribution system power factor at end of year (%):					

**Line Loss Reduction Programs:**

Peak load savings (kW):		
	lifecycle	in year
Energy savngs (kWh):		

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):	
Energy generated (kWh):	
Peak energy generated (kWh):	
Fuel type:	

**Other Programs (specify):**

Metric (specify):	
-------------------	--

D. <b>Program Costs*:</b>			<b>Total 05&amp;06 Costs</b>	<b>Cumulative Life to Date</b>
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ 20,282.00	\$ -	\$ 20,282.00
	Incentive:	\$ -	\$ -	\$ -
	Total:	\$ 20,282.00	\$ -	\$ 20,282.00
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ 20,282.00	\$ -	\$ 20,282.00

**E. Comments:**

[Redacted comment area]

<sup>1</sup> times the net present value per unit benefit specified in the TRC Guide.  
<sup>2</sup> 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:** Kill-A-Watt Library Lending Program

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

Assisting Customers in understanding where they use energy is the first step in helping them maximize their conservation activities. COLLUS Power has partnered with local Libraries to provide customers with the opportunity to borrow Power Monitors through the use of their Library cards. Together with the Power Monitors, COLLUS Power developed a detailed instruction manual along with calculation sheets that customers can keep as a reference after they have completed their monitoring.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Basic Understanding of Consumption		
<i>Efficient technology:</i>	Power Monitoring		
<i>Number of participants or units delivered:</i>	1.00		
<i>Measure life (years):</i>	0.00		
<i>Number of participants/units 05&amp;06</i>			
<i>Number of Participants or units delivered life-to-date</i>	1.00		

<b>TRC Results:</b>		<b>Reporting Year</b>	<b>Total 05&amp;06 TRC Results</b>	<b>Life-to-date TRC Results:</b>
B.	<sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
	<sup>2</sup> TRC Costs (\$):			
	<i>Utility program cost (less incentives):</i>	\$ 6,574.00		\$ 6,574.00
	<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -		\$ -
	<i>Total TRC costs:</i>	\$ 6,574.00	\$ -	\$ 6,574.00
	<i>Net TRC (in year CDN \$):</i>	-\$ 6,574.00	\$ -	-\$ 6,574.00
	<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	0.00	#DIV/0!	\$ -

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

**Conservation Programs:**

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

*Other resources saved :*

<i>Natural Gas (m3):</i>	0	0
<i>Water (l)</i>	0	0

**Demand Management Programs:**

<i>Controlled load (kW)</i>	
<i>Energy shifted On-peak to Mid-peak (kWh):</i>	
<i>Energy shifted On-peak to Off-peak (kWh):</i>	
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>	

**Demand Response Programs:**

<i>Dispatchable load (kW):</i>	
<i>Peak hours dispatched in year (hours):</i>	

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

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

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

**Line Loss Reduction Programs:**

Peak load savings (kW):

lifecycle

in year

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>Total 05&amp;06 Costs</u>	<u>Cumulative Life to Date</u>
D. <b><u>Program Costs*:</u></b>	Utility direct costs (\$):	\$ -	\$ -	\$ -
	Includes Measure's Cost - ensure full cost of measure entered in TRCIL15			
	Incremental capital:	\$ 4,474.00	\$ -	\$ 4,474.00
	Incremental O&M:	\$ -	\$ -	\$ -
	Incentive:	\$ -	\$ -	\$ -
	Total:	\$ 4,474.00	\$ -	\$ 4,474.00
	Utility indirect costs (\$):	\$ -	\$ -	\$ -
	Incremental capital:	\$ -	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -	\$ -
	Total:	\$ -	\$ -	\$ -
	<b>Total Utility Cost of Program</b>	<b>\$ 4,474.00</b>	<b>\$ -</b>	<b>\$ 4,474.00</b>

**E. Assumptions & Comments:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** 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)
<i>Base case technology:</i>	Incandescent 155,374 kWh per Annum		
<i>Efficient technology:</i>	LED 26,584 per Annum		
<i>Number of participants or units delivered:</i>	0.00	0	0
<i>Measure life (years):</i>	20.00		
<i>Number of participants or units 2005</i>	1		
<i>Number of Participants or units delivered life-to-date</i>	1.00		

<b>TRC Results:</b>	<b>Reporting Year</b>	<b>2005/2006 TRC Results</b>	<b>Life-to-date TRC Results:</b>
B. <sup>1</sup> TRC Benefits (\$):		\$ 99,233.85	\$ 99,233.85
<sup>2</sup> TRC Costs (\$):			
<i>Utility program cost (less incentives):</i>		\$ 500.00	\$ 500.00
<i>Incremental Measure Costs (Equipment Costs)</i>		\$ 38,147.21	\$ 38,147.21
<i>Total TRC costs:</i>		\$ 38,647.21	\$ 38,647.21
<i>Net TRC (in year CDN \$):</i>		\$ 60,586.64	\$ 60,586.64
 <i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	0.00	\$ 2.57	\$ 2.57

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

**Conservation Programs:**

Demand savings (kW):	Summer	13.23	Report Winter Demand (kW)	
	Winter	13.23	13.23	
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
			2318224.68	115911.234
			05/06 Lifecycle	05/06 Annual
			2318224	115911
 <i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>	0	0		
<i>Water (l)</i>	0	0		

**Demand Management Programs:**

<i>Controlled load (kW):</i>	
<i>Energy shifted On-peak to Mid-peak (kWh):</i>	
<i>Energy shifted On-peak to Off-peak (kWh):</i>	
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>	

**Demand Response Programs:**

<i>Dispatchable load (kW):</i>	
<i>Peak hours dispatched in year (hours):</i>	

**Power Factor Correction Programs:**

<i>Amount of KVar installed (KVar):</i>	
<i>Distribution system power factor at beginning of year (%):</i>	



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

**Line Loss Reduction Programs:**

Peak load savings (kW):

*lifecycle* *in year*

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>2005 Costs</u>	<u>Cumulative Life to Date</u>
D. <b><u>Program Costs*:</u></b>	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:	\$ -	\$ -	
<b>Total Utility Cost of Program</b>			<b>\$ 34,000.00</b>	<b>\$ 34,000.00</b>

**E. Assumptions & Comments:**

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

<sup>2</sup>

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** 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 coupon 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
<i>Base case technology:</i>	0	5 Watt Christmas Lights	Incandescent Mini Christmas L	Standard Thermostats	Basic Light Switch	Basic Light Switch
<i>Efficient technology:</i>	CFLs	LED Christmas Lights	LED Christmas Lights (Min	Progr. Thermostats	Dimmer Switch	Motion Sensors
<i>Number of participants or units delivered:</i>						2.00
<i>Measure life (years):</i>	4.00	30.00	30.00	18.00	10.00	20.00
<i>Number of participants or units 2005</i>	6638	1333	1332	152	120	
<i>Number of Participants or units delivered life-to-date</i>	6,638.00	1,333.00	1,332.00	152.00	120.00	2.00

B. <b>TRC Results:</b>	<u>Reporting Year</u>	<u>2005/2006 TRC Results</u>	<u>Life-to-date TRC Results:</u>
	<i>TRC Benefits (\$):</i>		\$ 289,631.00
<i>Measure's Costs (\$):</i>			
<i>Utility program cost (less incentives):</i>		\$ 1,200.00	\$ 1,200.00
<i>Incremental Measure Costs (Equipment Costs)</i>		\$ 25,754.00	\$ 25,754.00
<i>Total TRC costs:</i>		\$ 26,954.00	\$ 26,954.00
<b><i>Net TRC (in year CDN \$):</i></b>		<b>\$ 262,677.00</b>	<b>\$ 262,677.00</b>
 <i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>		 \$ 10.75	 \$ 10.75

C. <b>Results:</b> (one or more category may apply)			<b>Cumulative Results:</b>	
<b>Conservation Programs:</b>				
<i>Demand savings (kW):</i>	Summer	0.00	Report Winter Demand (kW)	
	Winter		189.78	
<i>Energy saved (kWh):</i>	lifecycle	in year	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
			6061406	783577
			05/06 Lifecycle	05/06 Annual
			6061406	783577
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>		0		
<i>Water (l)</i>		0		

**Demand Management Programs:**  
*Controlled load (kW)*

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

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

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

**Demand Response Programs:**

Dispatchable load (kW):

Peak hours dispatched in year (hours):

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

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

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

**Line Loss Reduction Programs:**

Peak load savings (kW):

Energy savngs (kWh):  lifecycle  in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

D. <b>Program Costs*:</b>			<u>2005/2006 Costs</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ -	<input type="text"/>	\$ -
	Incremental O&M:	\$ -	<input type="text"/>	\$ -
	Incentive:	\$ -	<input type="text"/>	\$ -
	Total:	\$ -	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:	\$ -	<input type="text"/>	\$ -
	Incremental O&M:	\$ -	<input type="text"/>	\$ -
	Total:	\$ -	\$ -	\$ -
<b>Total Utility Cost of Program</b>		\$ -	\$ -	\$ -

**E. Assumptions & Comments:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** 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
<i>Base case technology:</i>	0	0.00	0.00	0.00
<i>Efficient technology:</i>	CFLs	Ceiling Fan	Timers	Progr. Thermostats
<i>Number of participants or units delivered:</i>				
	0.00	0.00	0.00	0.00
<i>Measure life (years):</i>	4.00	20.00	20.00	18.00
<i>Number of participants or units 2005</i>	3326	43	75	95
<i>Number of Participants or units delivered life-to-date</i>	3,326.00	43.00	75.00	95.00

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:	
		2005/2006 TRC Results	Life-to-date TRC Results:
<i>TRC Benefits (\$):</i>	\$ -	\$ 125,041.55	\$ 125,041.55
<i>Measure's Costs (\$):</i>			
<i>Utility program cost (less incentives):</i>		\$ 3,930.00	\$ 3,930.00
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -	\$ 15,606.75	\$ 15,606.75
<i>Total TRC costs:</i>	\$ -	\$ 19,536.75	\$ 19,536.75
<b>Net TRC (in year CDN \$):</b>		\$ 105,504.80	\$ 105,504.80
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>		\$ 6.40	\$ 6.40

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

**Conservation Programs:**

Demand savings (kW):	Summer	Winter	Report Winter Demand (kW)	
			Cumulative Lifecycle	Cumulative Annual Savings
		0.00		
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	<i>in year</i>	<i>05/06 Lifecycle</i>	<i>05/06 Annual</i>
	0.00	0.00	2392050.88	369194.991
			2392050.88	369195
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>	0	0		
<i>Water (l)</i>	0	0		

**Demand Management Programs:**

<i>Controlled load (kW)</i>	
<i>Energy shifted On-peak to Mid-peak (kWh):</i>	
<i>Energy shifted On-peak to Off-peak (kWh):</i>	
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>	

**Demand Response Programs:**

<i>Dispatchable load (kW):</i>	
<i>Peak hours dispatched in year (hours):</i>	

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

<i>Peak load savings (kW):</i>	
<i>Energy savngs (kWh):</i>	
	<i>lifecycle</i>
	<i>in year</i>

**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\*:**

		<u>2005 Costs</u>		<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
	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:**

\_\_\_\_\_

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** 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:	0.00	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	1.00		

B. <b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
		Results	Results:
<sup>1</sup> TRC Benefits (\$):	\$ -	\$ -	\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):		\$ 11,650.00	\$ 11,650.00
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -	\$ -
Total TRC costs:		\$ 11,650.00	\$ 11,650.00
<b>Net TRC (in year CDN \$):</b>		-\$ 11,650.00	-\$ 11,650.00
 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	
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
	0.00	0.00	0	0
			2005 Lifecycle	2005 Annual
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

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

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

**Line Loss Reduction Programs:**

Peak load savings (kW):

lifecycle

in year

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>2005 Costs</u>	<u>Cumulative Life to Date</u>
D. <b><u>Program Costs*:</u></b>	Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
		Incremental O&M:	\$ -	\$ 10,350.00
		Incentive:	\$ -	\$ -
		Total:	\$ -	\$ 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:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Conservation 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 strong part in spreading the message. As a result, we have established an annual plan with both the local FM station and the local Cable Television 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)
<i>Base case technology:</i>	0		
<i>Efficient technology:</i>	Conservation Culture		
<i>Number of participants or units delivered:</i>	0.00	0	0
<i>Measure life (years):</i>	0.00		
<i>Number of participants or units 2005</i>	2	466	0
<i>Number of Participants or units delivered life-to-date</i>	2.00	466	

	<u>Reporting Year</u>	<u>2005/2006 TRC Results</u>	<u>Life-to-date TRC Results:</u>
<b>B. <u>TRC Results:</u></b>			
<sup>1</sup> TRC Benefits (\$):	\$ -	-	\$ -
<sup>2</sup> TRC Costs (\$):			
<i>Utility program cost (less incentives):</i>	\$ -	\$ 35,520.73	\$ 35,520.73
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -	-	\$ -
<i>Total TRC costs:</i>	\$ -	\$ 35,520.73	\$ 35,520.73
<i>Net TRC (in year CDN \$):</i>	\$ -	-\$ 35,520.73	-\$ 35,520.73
 <i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	0.00	\$ -	\$ -

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

**Conservation Programs:**

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

**Demand Management Programs:**

<i>Controlled load (kW)</i>	
<i>Energy shifted On-peak to Mid-peak (kWh):</i>	
<i>Energy shifted On-peak to Off-peak (kWh):</i>	
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>	

**Demand Response Programs:**

<i>Dispatchable load (kW):</i>	
<i>Peak hours dispatched in year (hours):</i>	



**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):   
Energy savngs (kWh):  lifecycle  in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):   
Energy generated (kWh):   
Peak energy generated (kWh):   
Fuel type:

**Other Programs (specify):**

Metric (specify):

		Reporting Year	05/06 Costs	Cumulative Life to Date
<b>D. Program Costs*:</b>				
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
Includes Measure's Cost - ensure full cost of measure entered in TRCIL15	Incremental O&M:	\$ -	\$ 32,120.73	\$ 32,120.73
	Incentive:	\$ -		\$ -
	Total:	\$ -	\$ 32,120.73	\$ 32,120.73
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ -	21,244.73	32,120.73

**E. Assumptions & Comments:**

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

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

# 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 implementation 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)
<i>Base case technology:</i>	0		
<i>Efficient technology:</i>	Industrial Conservation Improvements		
<i>Number of participants or units delivered:</i>	0.00	0	0
<i>Measure life (years):</i>	0.00		
<i>Number of participants or units 2005</i>	3	0	0
<i>Number of Participants or units delivered life-to-date</i>	3.00		

<b>TRC Results:</b>	<b>Reporting Year</b>	<b>2005/2006 TRC Results</b>	<b>Life-to-date TRC Results:</b>
B. <sup>1</sup> TRC Benefits (\$):	\$ -	\$ -	\$ -
<sup>2</sup> TRC Costs (\$):			
<i>Utility program cost (less incentives):</i>	\$ 7,920.00	\$ 10,139.95	\$ 10,139.95
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -	\$ -	\$ -
<i>Total TRC costs:</i>	\$ 7,920.00	\$ 10,139.95	\$ 10,139.95
<i>Net TRC (in year CDN \$):</i>	-\$ 7,920.00	-\$ 10,139.95	-\$ 10,139.95
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	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
<i>Energy saved (kWh):</i>	0.00	0.00	0	0
			2005 Lifecycle	2005 Annual
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>	0	0		
<i>Water (l)</i>	0	0		

**Demand Management Programs:**

<i>Controlled load (kW)</i>	
<i>Energy shifted On-peak to Mid-peak (kWh):</i>	
<i>Energy shifted On-peak to Off-peak (kWh):</i>	
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>	

**Demand Response Programs:**

<i>Dispatchable load (kW):</i>	
<i>Peak hours dispatched in year (hours):</i>	

**Power Factor Correction Programs:**

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

**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):	
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		<u>Reporting Year</u>	<u>05/06 Costs</u>	<u>Cumulative Life to Date</u>
D. <b>Program Costs*:</b>				
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -	\$ -
	Incremental O&M:	\$ -	\$ 7,339.95	\$ 7,339.95
	Incentive:	\$ -	\$ -	\$ -
	Total:	\$ -	\$ 7,339.95	\$ 7,339.95
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -	\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ -	\$ 7,339.95	\$ 7,339.95

**E. Assumptions & Comments:**

[Redacted area]

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

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

# 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 across the balance of our territory. Phase three will involve the implementation of recommendations 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:	0.00	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	2.00		

	<u>Reporting Year</u>	<u>2005/2006 TRC Results</u>	<u>Life-to-date TRC Results:</u>
<b>TRC Results:</b>			
B. <sup>1</sup> TRC Benefits (\$):	\$ -	\$ -	\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):		\$ 80,350.60	\$ 80,350.60
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -	\$ -
Total TRC costs:		\$ 80,350.60	\$ 80,350.60
<u>Net TRC (in year CDN \$):</u>		-\$ 80,350.60	-\$ 80,350.60

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	
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
	0.00	0.00	0	0
			2005 Lifecycle	2005 Annual

Other resources saved :

Natural Gas (m3):	0	0	
Water (l)	0	0	

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

Amount of KVar installed (KVar):

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

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

**Line Loss Reduction Programs:**

Peak load savings (kW):

lifecycle

in year

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>05/06 Costs</u>	<u>Cumulative Life to Date</u>
<b>D. <u>Program Costs*:</u></b>				
Utility direct costs (\$):	Incremental capital:	\$ -	-	\$ -
Includes Measure's Cost - ensure full cost of measure entered in TRCIL15	Incremental O&M:	\$ -	\$ 77,350.60	\$ 77,350.60
	Incentive:	\$ -	-	\$ -
	Total:	\$ -	\$ 77,350.60	\$ 77,350.60
Utility indirect costs (\$):	Incremental capital:	\$ -	-	\$ -
	Incremental O&M:	\$ -	-	\$ -
	Total:	\$ -	\$ -	\$ -
<b>Total Utility Cost of Program</b>		<b>\$ -</b>	<b>\$ 77,350.60</b>	<b>\$ 77,350.60</b>

**E. Assumptions & Comments:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** 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:	0.00	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	1.00		

B. <b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
		Results	Results:
<sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):	\$ -	\$ 13,819.74	\$ 13,819.74
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ -	\$ 13,819.74	\$ 13,819.74
<b>Net TRC (in year CDN \$):</b>	\$ -	-\$ 13,819.74	-\$ 13,819.74
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
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
			0.00	0.00
			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 beginning of year (%):   
Distribution system power factor at end of year (%):

**Line Loss Reduction Programs:**

Peak load savings (kW):   
Energy savngs (kWh):  lifecycle  in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):   
Energy generated (kWh):   
Peak energy generated (kWh):   
Fuel type:

**Other Programs (specify):**

Metric (specify):

		Reporting Year	05/06 Costs	Cumulative Life to Date
<b>D. Program Costs*:</b>				
Utility direct costs (\$):	Incremental capital:	\$ -		\$ -
Includes Measure's Cost - ensure full cost of measure entered in TRCIL15	Incremental O&M:	\$ -	\$ 10,019.74	\$ 10,019.74
	Incentive:	\$ -		\$ -
	Total:	\$ -	\$ 10,019.74	\$ 10,019.74
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:	\$ -	\$ -	\$ -
Total Utility Cost of Program		\$ -	\$ 10,019.74	\$ 10,019.74

**E. Assumptions & Comments:**

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

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

# Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** 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 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:	0.00	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:	2.00		

B. <b>TRC Results:</b>	Reporting Year	2005/2006 TRC	Life-to-date TRC
		Results	Results:
<sup>1</sup> TRC Benefits (\$):	\$ -		\$ -
<sup>2</sup> TRC Costs (\$):			
Utility program cost (less incentives):	\$ -	\$ 8,157.00	\$ 8,157.00
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	\$ -	\$ 8,157.00	\$ 8,157.00
<b>Net TRC (in year CDN \$):</b>	\$ -	-\$ 8,157.00	-\$ 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
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
			0.00	0.00
			2005 Lifecycle	2005 Annual
Other resources saved :				
Natural Gas (m3):	0	0		
Water (l)	0	0		

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**



Amount of KVar installed (KVar):

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

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

**Line Loss Reduction Programs:**

Peak load savings (kW):

*lifecycle* *in year*

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

		<u>Reporting Year</u>	<u>05/06 Costs</u>	<u>Cumulative Life to Date</u>
D. <b><u>Program Costs*:</u></b>	Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	Includes Measure's Cost - ensure full cost of measure entered in TRCIL15	Incremental O&M:	\$ -	\$ 8,157.00
		Incentive:	\$ -	\$ -
		Total:	\$ -	\$ 8,157.00
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ -	
	Incremental O&M:	\$ -	\$ -	
	Total:	\$ -	\$ -	
<b>Total Utility Cost of Program</b>		<b>\$ -</b>	<b>\$ 8,157.00</b>	<b>\$ 8,157.00</b>

**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 across the Province which will undoubtedly become the cornerstone of many CDM projects in years to come.

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

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