



Cornerstone Hydro Electric Concepts Association Inc.

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

Conservation and Demand 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 2005. 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. Although this report is submitted as one document it is clear from the individual reports that each utility brings its own perspective and goals to the CDM activities.

Within the 16 utilities there have been a total of ninety-two (92) initiatives. These initiatives represent projects specific to individual utilities and others that are similar or a cooperative effort between utilities (Conservation Website, EnergyShop.com). Some utilities have focused on promoting and providing energy efficient technology to their customers with the associated kWh savings, while others have been more focused on laying the foundation for future programs. To achieve the "conservation culture", the overriding goal in Ontario, both types play an important role.

CHEC with its dynamic relationship, positions members well to learn from and leverage the experience of others. The combined report as well as meeting the regulatory requirement, provides a comprehensive summary to CHEC members. This report will help to provide additional insights, as utility staff plan and implement the 2006 and 2007 programs.

The experiences gained in 2005 will be invaluable for the continued development of CDM and the ability to move forward programs that save energy and develop the conservation culture. The experiences gained over 2005 add to the collective knowledge of the industry and sets the stage for on-going improvement in the development, delivery, monitoring and reporting of CDM initiatives.

2.0 CHEC Members:

The 2005 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 ran a total of 92 programs. 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.

The program results represent a total energy savings of 29,760,749 kWh at a combined “Utility Cost” of \$908,387 or approximately 3c/kWh. This low cost of energy saved was achieved while providing both education and foundation building programs in addition to the specific initiatives aimed at savings kWh. To put the energy savings in perspective the 29.7 Million kWh represent the annual energy required by 2,400 homes (at 1000 kWh/month).

Figure 1 and Figure 2 illustrates the breakdown of the programs into the three types. From the figure it can be seen that cost and activity generally correlate. Programs aimed at immediate kWh savings represent 36% of the cost while they represent 27% of the programs delivered during the year. Education and Foundation programs, that are expected to return improved kWh savings in the future, represent 64% of the cost and 73% of the activity. **From the spending and activity level in the different categories it can be seen that 2005 while providing energy savings has focused on preparing for year two and three of CDM delivery.**

Figure 1

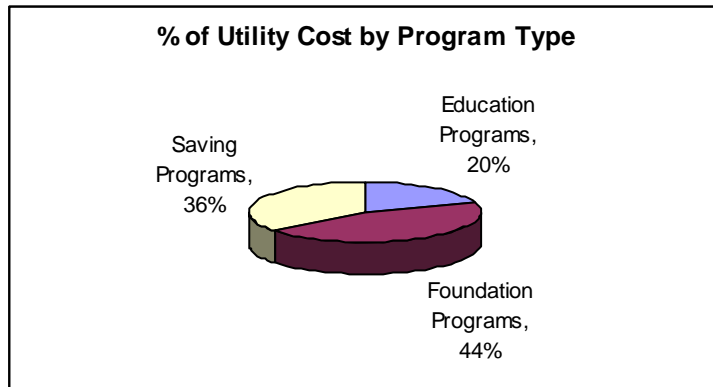
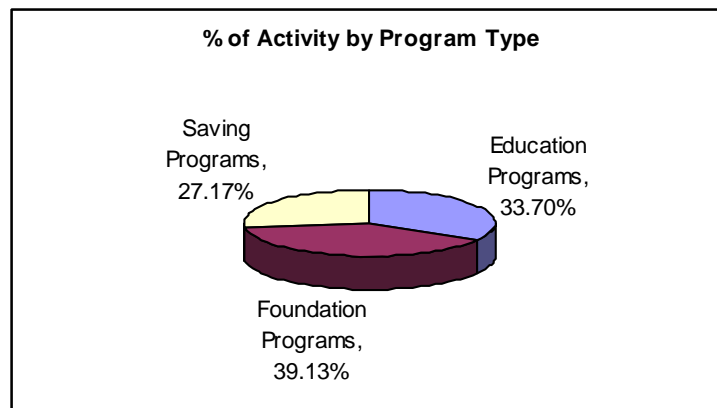


Figure 2



Savings Programs: The programs aimed at immediate results focused on energy savings rather than peak demand. The average cost of energy saved through the “Energy Savings” programs was 1.1c/kWh.

The use of product incentives and give-a-ways contributed significantly to achieving immediate energy savings. Programs such as the “Lighten Your Electricity Bill” and local product incentives such as CFL distribution programs resulted in energy savings throughout the membership. The wide scale programs provided an economy of scale while the local programs built on relationships and resources within the community. The product focused programs represented a utility cost of \$163,400 and a lifetime energy savings of 15,692,800 kWh or 1.1c/kWh.

Four system optimization projects (out of a total of twelve) involved field changes completed in 2005 that captured energy savings. The four field projects represent a utility cost of \$163,300 and a lifetime energy savings of 12,793,000 kWh or 1.3c/kWh (note: one program pending review to confirm savings).

Education Programs: These programs while not generating any immediate savings represent the future of CDM within the Province. Incentive programs while providing immediate savings cannot on their own change behaviour within the customer group. Programs aimed at increasing the customer's knowledge of energy use is required if long term savings are desired. As the saying goes – If you give a person a CFL you provide energy savings for 4 years. If you provide a person with the knowledge to save energy you provide energy savings for a lifetime. This is the role of the education programs.

Twenty percent of the total utility cost was spent on providing education to the customers. The activities within this classification vary from providing brochures to detailed customer workshops. Although the results of these programs are not immediate it is believed that they will impact positively on customer participation in future programs and prepare customers to make informed decisions with regards to energy use.

CHEC is in the process of developing a website focused on energy conservation. The website in addition to providing energy management knowledge to the customers will also allow the effective exchange of CDM information between CHEC members. The website funding includes dollars to allow the CHEC membership to engage external resources to assist in developing the site and also assist members with CDM issues of common interest.

It is interesting to note in the “Education” section the experience of one CHEC member (Orillia) with success from an industrial workshop. As a direct result of a “Dollar to Sense” workshop changes were made in an industrial setting that resulted in quantifiable savings. These results were captured because the customer communicated the action and potential energy savings to the utility. The savings of 255,000 kWh annually, clearly illustrates the role “education” can play in obtaining significant energy savings.

Foundation Program: These programs are those initiatives aimed at developing programs that will provide savings in the future. Thirty nine percent of the programs (44% of utility cost) focused on research and development of programs that will be delivered in year two and three of the CDM Plan. At the end of the reporting period however the programs have not been rolled out or have not generated any savings to date. For the purpose of reporting, projected savings have generally not been utilized.

Foundation Programs include initiatives such as: system optimization studies, smart meter preparation, customer audits, demonstration projects and relationship building, to name a few. Unlike education, where the activity is geared to the customer, these programs are aimed at ensuring the appropriate information and processes for the CDM activity of future years. Approaching the end of the first quarter of 2006 it is apparent that there are a number of programs that are moving

forward as a direct result of the foundation work completed in 2005 (e.g. Woodstock finance plan, Orangeville Reduce the Juice)

Net TRC Results: The net TRC result of the combined CHEC CDM activity for 2005 is \$499,756. Although a large number, it is difficult to determine if this represents good success of the overall portfolio. While net TRC measures the dollar benefits of avoided electrical energy cost it does not measure the education and development work that is associated with an on-going CDM program.

Reviewing the individual reports of the CHEC members indicates that ten of the members had positive Net TRCs while six had negative Net TRCs. In isolation one may conclude that anything but a positive TRC is undesirable. However it is proposed that the TRC for the first year of a multi-year program does not reflect the overall value of the effort undertaken and that the overall activity of the utility should be taken into account.

As noted above there has been a significant amount of education and foundation work undertaken by CHEC members. The individual reports indicate a mix of approaches with some focusing on preparatory work, others on immediate deliverables and others on a mix of programs. Depending on the success of programs aimed at delivering immediate savings and the cost of education and foundation programs the Net TRC will vary. **Through the sharing of program information and outcomes CHEC members will be able to learn from each others' experiences to continue to deliver effective CDM programs in the future.**

4.0 Discussion of Programs:

The individual program discussions from each utility should be examined. 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. One copy of the SeeLine Total Resource Cost Test Assessment of the '2005 Lighten Your Electricity Bill' Program is also included in the appendices as a sample of the program evaluation process for the coupon program as reported in CHEC members' reports.

5.0 Lessons Learned:

Each utility report included in the attached appendices includes lessons learned from the 2005 CDM experience for each utility. Although a flavour of the "lessons learned" is summarized in this section the reader is encouraged to review the individual reports for additional insights.

Application of TRC: This report represents the first large scale application of TRC for the evaluation of CD&M programs in Ontario. The TRC model, while forming a base, is seen to encourage “quick return” programs and does not provide any measure of foundation or education programs that are so critical to developing a “conservation culture”. It is believed that for future year evaluation of CDM activities the TRC tool needs to be expanded to take into account education and foundation type programs.

Familiarity has been gained with the TRC tool over the past reporting year. The OEB’s initiative to provide a set of assumptions assisted with the evaluation of programs and reporting. The need to continue to refine and add to the list of assumptions for cost effective evaluation is evident. The evaluation process for programs also fails to capture additional activities of customers that are driven through exposure to programs where consumers are not directly taking advantage of a particular coupon or rebate.

Experience gained in reporting the activities of 2005 also indicates the need to ensure that measures of programs are understood at the program design stage. For education programs, in addition to some modification of the TRC model to better recognize the benefits of these programs, mechanisms for obtaining feedback from customers is required. These mechanisms however must be cost effective.

Funding: There remains significant third tranche dollars for the continued delivery of CDM programs in 2006 and potentially 2007. However, if CDM is to continue members will be required to submit applications for additional CDM expenditures. A simplified approval process is required to allow utilities to obtain appropriate CDM funding without being encumbered with a full rate hearing on these items. In addition, as noted above, the TRC tool requires modification to provide value to education and foundation programs. A continued lack of recognition of the value of these types of programs will focus utilities on programs that deliver immediate positive TRC result, a condition that will not foster a “conservation culture”.

Partnerships and Sharing: CHEC by its’ very existence is about partnerships and sharing. CHEC members are working together to move forward CDM in their service territories. In addition CHEC members have been active participants in local and provincial wide initiatives to build relationships and take advantage of scale. It is believed through these types of endeavours, the “best bang for the buck” can be achieved for the customer.

Province wide initiatives are generally supported by CHEC members as a good way to enter into partnerships with the OPA, manufacturers, contractors, and retail outlets in order to deliver cost effective programming. Within these programs the ability to provide local support and branding is important to allow the existing positive relationship that the local utility enjoys with its customers to be leveraged.

Foundation Year: Many of the CHEC members note in their report the “foundation building” nature of 2005. The ability of the industry to come up to speed is noted as well as the development of programs and guidelines associated with CDM. All CDM participants have been learning over 2005.

Much of the work completed in 2005 sets the stage for the next two years. With a mix of delivered savings, education and investigation of programs CHEC and the industry have prepared for continued CDM over the next two years and beyond.

Customer Readiness: The success of the residential programs offered to customers indicates the readiness of customers to take action to control their energy use and costs. Obtaining resources for utilities to design and deliver commercial and industrial programs requires further attention. The energy savings within these sectors can be extensive, however the lead time for design, delivery and customer implementation is much longer. Members recognize that much of the issue with this sector is the limited resources (time and money) the customers have to put on energy management. Successfully meeting the needs of this sector will require further effort and sharing of projects that have proved successful.

Utility Resources: To-date utilities have not generally increased internal resources to address the CDM portfolio. Utilities have worked the additional CDM demands into existing work loads by placing other issues at a lower priority. Continuation of this arrangement is not sustainable over the long term. Recognition of the impact that continued CDM programming has on resources is required in both the funding and reporting requirements. As noted above under “Funding” a simplified method for accessing CDM funding is required to ensure the appropriate resources are put in place to support the appropriate level of CDM activity.

6.0 Conclusion:

The first year of CDM has been a learning or foundation year. The CHEC members look back on their projects to date and recognize there has been significant learning. As the individual reports indicate there continues to be a commitment to CDM with utilities looking to capture future benefits from the work done in 2005.

CHEC members have delivered energy savings while increasing the collective knowledge of the CDM industry. CHEC members have demonstrated a willingness to be fully engaged in the process. Through the continued sharing of information and programs between members and other organizations, CHEC will continue to play an important role in the design, delivery and reporting of CDM for the benefit of their customers.

7.0 Appendices:

Appendix 1	Summary of CHEC Appendix A's	page 9
	Individual Utility CDM 2005 Annual Report RP-2004-0203/EB-2004-0502	
Appendix 2	Centre Wellington	page 10
Appendix 3	Collus Power	page 21
Appendix 4	Grand Valley	page 40
Appendix 5	Innisfil Hydro	page 48
Appendix 6	Lakefront Utilities	page 63
Appendix 7	Lakeland Power Distribution	page 75
Appendix 8	Midland Power Utility	page 86
Appendix 9	Orangeville Hydro Ltd	page 109
Appendix 10	Orillia Power Distribution	page 129
Appendix 11	Parry Sound Power	page 152
Appendix 12	Rideau St. Lawrence	page 167
Appendix 13	Wasaga Distribution Inc.	page 184
Appendix 14	Wellington North Power	page 203
Appendix 15	West Coast Huron Energy	page 232
Appendix 16	Westario Power	page 249
Appendix 17	Woodstock Hydro Services	page 263
Appendix 18	SeeLine TRC Assessment for 2005 Lighten Your Electricity Bill	page 294

Appendix A - Evaluation of the CDM Plan

	Total	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System				
<i>Net TRC value (\$):</i>	\$499,756										
<i>Benefit to cost ratio:</i>	1.582										
<i>Number of participants or units delivered:</i>	115,815.00	Summary of CHEC Appendices A									
<i>Total KWh to be saved over the lifecycle of the plan (kWh):</i>	29,760,746.70	Detailed A's follow for all CHEC Utilities									
<i>Total in year kWh saved (kWh):</i>	3,048,702.30	Utilities arranged alphabetically									
<i>Total peak demand saved (kW):</i>	329.19										
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>											
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>											
<i>Gross in year C&DM expenditures (\$):</i>	\$908,385.27										
<i>Expenditures per KWh saved (\$/kWh)*:</i>	\$0.0305										
<i>Expenditures per KW saved (\$/kW)**:</i>	\$2,759.4849										



Ontario Energy Board File number RP-2004-0203/EB-2004-0502

2005 Annual Report

Conservation and Demand Management Activities

Introduction:

Rideau St. Lawrence Distribution Inc. has completed its first year in the delivery of Conservation and Demand Management programs.

Program approval for Conservation and Demand Management expenditures was given as a Final order by the Ontario Energy Board on February 8, 2005. Rideau applied for, and received approval for CDM plan spending of \$120,000 consistent with the third installment of its incremental MARR.

This report covers the period from January 1, 2005 to December 31, 2005.

The year 2005 could best be described as a year of laying the foundation for Rideau. CDM programs were not previously a part of the day to day business for the company. Awareness amongst customer and utility staff needed to be initiated. Due to the relatively scarce amount of money available – partnerships and cooperative ventures for program delivery were sought. Programs which did not require large amounts of capital investment for on-going infrastructure have been targeted during this learning period.

Costs included in this report are only costs which have been incurred and invoiced by a third party. The in-house effort – has not been reported in terms of capital spent as part of the third tranche. We would hope that this does not under-estimate the effort required in the research, implementation and support of programs considered and delivered. Much effort has been devoted to the front-end of the plan for the planning and development of programming that will follow in the next two years.

2005 Projects

Smart Metering Study: Rideau has recognized the conservation potential of a smart metering program consistent with provincial policy. In this regard Rideau partnered with a number of utilities (approximately 35) in the Ontario Utilities Smart Metering initiative. The cumulation of the work of the smart metering group in the December 16, 2005 Pilot Evaluation Symposium.

Budget: Not in original plan – money was re-allocated from other parts of the plan. Total reallocation represents 4.2% of the total plan.

Spent: \$5,128

Education and Promotion

Conservation Brochure: Rideau along with eighteen other LDC's partnered to reproduce the Ministry of Energy's "Tips to help you.....Conserve Energy and Save Money," brochure. The brochure contains tips, energy facts and purchasing information to help consumers make informed decisions and conserve energy. Customer feedback has found this brochure to be user friendly and helpful. It has been well received.

Switch to Cold Coupon Program: This program is a consumer awareness campaign to educate customers on how much energy and money they can save by switching to cold water washing. In addition to energy savings it is also promoted as a way of reducing CO₂ that is emitted into the air and can help customers reach their One-Tonne Challenge goal. The typical Canadian family currently washing in warm and rinsing in cold could save up to 620 kWh a year – which translates to a savings of up to \$52 a year. For those who both wash and rinse in warm, the savings can be more than double this if they make the switch to cold, and for those few who currently use hot water for their wash, these savings are even more significant. *(Figures are based on using a national average of 6.3 laundry loads per week, electric water heater set a t60 degrees Celsius/140 degrees Fahrenheit and 2002 Natural Resources Canada electricity costs.)*

The program was delivered by providing customers with a "Save \$1" coupon on any Tide Coldwater detergent purchase. The coupon was delivered as a billing insert with customers' utilities bill.

For this report we are unable to provide coupon redemption figures as the coupons do not expiry until February 28, 2006. The retailer redemption and report compilation are to be complete in April 2006.

Lighten Your Electricity Bill Coupon Program: This program was aimed at offering customers a coupon program for six consumer products (ceiling fans, LED seasonal lights, compact florescent lights, programmable thermostats, timers –Indoor light and appliance, outdoor timers –pool and hot tub) and an offer to save \$20 on a home energy evaluation. The program was run in conjunction with approximately forty electric distributors and a retail representative – Canadian Tire. The money saving coupons were delivered as a billing insert mailed with the customers utility bill.

Total Education and Promotion Budget: \$19,000

Total Spent: \$2,632

Conservation Website:

This project will provide a conservation website which is a significant avenue of opportunity to educate, inform, advertise and reach out to energy consumers.

Components of the site may include:

- Links from local distribution company website
- Links (ministry, load profile services, municipal links, government web links, etc.)
- Calculators of energy savings concepts (input sheets on base case and pick a proposed measure to find out savings)
- Energy conservation articles
- Provide information and describe all energy efficiency measures (Power factor, generation, energy efficiency lighting, etc)
- Post all LDC rate structures and information
- Current and archived energy / industry news
- IMO links
- Advertise seminars, special events, awards
- Did you know? Tips, suggestions, experiences / testimonials from local people
- Q & A
- Case studies on various measures
- Contact information for local suppliers and contractors

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

This project is in development and expected to be operational by mid-2006.

Budget \$15,000

Total Spent: \$3,672

2. Evaluation of CDM Plan

Appendix A of the OEB's annual reporting guidelines is attached and forms part of this report.

Overall TRC was positive \$12,609 . This would have been a higher number except for two factors:

- Educational and smart metering study work do not create a positive TRC.
- We have included costs for the "Switch to Cold" program that only show costs. We are unable to estimate the results of the program. This is a report timing issue.

Overall we feel that we experienced very good customer participation as evidenced by the "**Lighten Your Electricity Bill Coupon**" results. The partnering for program development and delivery was key for Rideau in driving down utility costs.

3. Discussion of Programs

Appendix B of the OEB's annual reporting guidelines is attached and forms part of this report. We also have attached the report from SeeLine for the assumptions used in evaluating the "**Lighten Your Electricity Bill Coupon**" program.

4. Lessons Learned

C and DM programs should be easier to deliver in the future than they have been early in this process. A great deal of effort has been required to “get up to speed” and become familiar with various programs and the elements required to deliver them.

Consumer response to the fall coupon campaign was high – as evidenced by the participation of residential customers. There appears to be an appetite for consumers to lower their energy bills. Although the results are not yet available for the second coupon program run – “Switch to Cold” there doesn’t seem to be the buzz around this one. Perhaps because it is a behaviour change and is contrary to some long standing thinking about clothes washing. Coupon programs like these have shown good customer response and we would run programs like this again in the future.

There was an issue though with the planned coupon delivery dates and billing inserts. Our plan had been to deliver the two coupons before the end of 2005. Instead we had to postpone the delivery of some of the coupons due to the required insert of the OEB’s fall newsletter. The two coupon programs had been arranged in early summer without our knowledge of the fall newsletter mailing. We expect that due to the shorter time for customer coupon redemption, results may be somewhat lower than may have otherwise been. Delivery of coupons as a billing insert is a low cost, high coverage option. It does require longer term planning due to bi-monthly billing schedules.

Reporting deadlines may require costs to be reported without results. This is the case with the “Switch to Cold” program. This is not an operational issue but a report timing issue.

Although the TRC has a value as a measure of certain technology swaps, it also has certain drawbacks as a reporting mechanism. A negative TRC value for education programs may not give the reader of a report a true picture of the value of an expenditure. Consumer awareness and education will form vital parts of the conservation culture that is being created in the province.

5. Conclusion

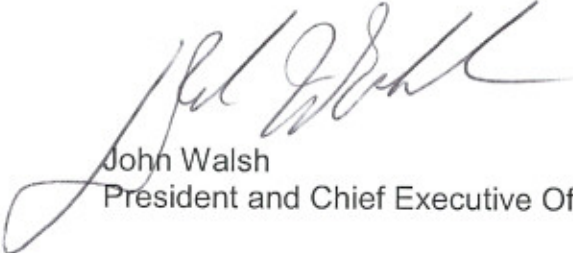
While 2005 was a year of laying the foundation, there is still much to learn. We have not put infrastructure in place for longer term projects due to the questions about revenue wholeness and cost recovery.

Programs should not be strictly evaluated based on the results of the TRC model. Projects such as our website and customer information brochures and smart metering investigation all will have a part in instilling a "conservation culture" with our customers. These are long term projects – and when combined with immediate programs – will reinforce – a message that is consistent with provincial initiatives.

We believe that there is an appetite for conservation programs which provide incentives for customers – both immediate incentives (rebate/coupon) and longer term (energy savings). We believe that this extends beyond the "early adopters", to a much larger population.

We think that as we gain experience and share our experiences with other LDC's, the effectiveness of programming will continue to grow. The introduction and building momentum of a conservation mindset should heighten awareness and appetite for further program delivery.

This report respectfully submitted on behalf of Rideau St. Lawrence Distribution Inc.



John Walsh
President and Chief Executive Officer

Appendix A - Evaluation of the CDM Plan

	Total	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	All Customer Classes	Other 2	Other 3	Other 4
<i>Net TRC value (\$):</i>	\$11,772	\$20,572						-\$8,800			
<i>Benefit to cost ratio:</i>	1.8	4.6						0			
<i>Number of participants or units delivered:</i>	8574	8574						0			
<i>Total kWh to be saved over the lifecycle of the plan (kWh):</i>	562621	562621						0			
<i>Total in year kWh saved (kWh):</i>	62654	62654						0			
<i>Total peak demand saved (kW):</i>	17.96	17.96						0			
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.0500%	0.0500%						0.0000%			
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	0.0700%	0.0700%						0.0000%			
<i>Gross in year C&DM expenditures (\$):</i>	\$13,415	\$4,615						\$8,800			
<i>Expenditures per kWh saved (\$/kWh)*:</i>	\$0.024	\$0.008						\$0.000			
<i>Expenditures per kW saved (\$/kW)**:</i>	\$636.580	\$146.660						\$0.000			
<i>Utility discount rate (%):</i>	8.565										

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

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

Appendix B - Discussion of the Program

(complete this section for each program)

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

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

This program involved a technical evaluation of smart meter technology. In conjunction with approximately thirty five LDC's working together in the Ontario Utilities Smart Metering Project (OUSM) various technologies were examined. The final report of the first stage was presented to the Ministry of Energy in December 2005.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Existing Electric Meters		
Efficient technology:	Time of Use Metering		
Number of participants or units delivered:	0		
Measure life (years):	0		

B. **TRC Results:**

TRC Benefits (\$):		\$	-
TRC Costs (\$):			
	Utility program cost (less incentives):	\$	5,128.24
	Participant cost:	\$	-
	Total TRC costs:	\$	5,128.24
Net TRC (in year CDN \$):		-\$	5,128.24
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		\$	-

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

Conservation Programs:

Demand savings (kW):	Summer	0	
	Winter	0	
		<i>lifecycle</i>	<i>in year</i>
Energy saved (kWh):	0	0	
Other resources saved :			
Natural Gas (m3):	0	0	
Other (specify):	0	0	

Demand Management Programs:

Controlled load (kW):		0
Energy shifted On-peak to Mid-peak (kWh):	0	
Energy shifted On-peak to Off-peak (kWh):		0
Energy shifted Mid-peak to Off-peak (kWh):		0

Demand Response Programs:

Dispatchable load (kW):		0
Peak hours dispatched in year (hours):		0

Power Factor Correction Programs:

Amount of KVar installed (KVar):		0
Distribution system power factor at beginning of year (%):		0
Distribution system power factor at end of year (%):		0

Line Loss Reduction Programs:

Peak load savings (kW):			0
		<i>lifecycle</i>	<i>in year</i>
Energy savngs (kWh):	0		0

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		0
Energy generated (kWh):		0
Peak energy generated (kWh):		0
Fuel type:		0

Other Programs (specify):

Metric (specify):		0
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D. Program Costs*:

Utility direct costs (\$):	Incremental capital:	\$	-
	Incremental O&M:	\$	5,128.24
	Incentive:	\$	-
	Total:	\$	5,128.24
Utility indirect costs (\$):	Incremental capital:		0
	Incremental O&M:		0
	Total:		0
Participant costs (\$):	Incremental equipment:		0
	Incremental O&M:		0
	Total:		0

E. Comments:

Costs incurred as part of the technical evaluation of a number of smart metering technologies.

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

Appendix B - Discussion of the Program

(complete this section for each program)

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

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

In partnership with members of the CHEC group and one other LDC a re-print of the Ministry of Energy's conservation brochure for residential customers was reprinted and distributed.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Lack of Educational Material		
Efficient technology:	Customer Information Brochure		
Number of participants or units delivered:	3000		
Measure life (years):	0		

B. **TRC Results:**

TRC Benefits (\$):		\$	-
TRC Costs (\$):			
	Utility program cost (less incentives):	\$	1,188.00
	Participant cost:	\$	-
	Total TRC costs:	\$	1,188.00
Net TRC (in year CDN \$):		-\$	1,188.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		\$	-

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

Conservation Programs:

Demand savings (kW):	Summer	0	
	Winter	0	
		lifecycle	in year
Energy saved (kWh):	0	0	
Other resources saved :			
	Natural Gas (m3):	0	0
	Other (specify):	0	0

Demand Management Programs:

Controlled load (kW):		0
Energy shifted On-peak to Mid-peak (kWh):	0	
Energy shifted On-peak to Off-peak (kWh):		0
Energy shifted Mid-peak to Off-peak (kWh):		0

Demand Response Programs:

Dispatchable load (kW):		0
Peak hours dispatched in year (hours):		0

Power Factor Correction Programs:

Amount of KVar installed (KVar):		0
Distribution system power factor at beginning of year (%):		0
Distribution system power factor at end of year (%):		0

Line Loss Reduction Programs:

Peak load savings (kW):				0
		<i>lifecycle</i>		<i>in year</i>
Energy savngs (kWh):		0		0

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		0
Energy generated (kWh):		0
Peak energy generated (kWh):		0
Fuel type:		0

Other Programs (specify):

Metric (specify):		0
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D. Program Costs*:

Utility direct costs (\$):	Incremental capital:	\$	-
	Incremental O&M:	\$	1,188.00
	Incentive:	\$	-
	Total:	\$	1,188.00
Utility indirect costs (\$):	Incremental capital:		0
	Incremental O&M:		0
	Total:		0
Participant costs (\$):	Incremental equipment:		0
	Incremental O&M:		0
	Total:		

E. Comments:

This was an educational/information resource provided to customers.

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

Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** Switch to Cold Water Wash Coupon Program

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

An energy conservation program aimed at providing a coupon rebate to residential customers for the purchase of Coldwater Tide. Coupon included in residential billing insert and redeemable at the any participating store where Coldwater Tide is sold. Value of coupon of \$1.00 savings on purchase of any size or type of Coldwater Tide product. Monitor program by coupons returned by retailers at the conclusion of the program - February 28, 2006.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Warm Water Clothes Washing		
Efficient technology:	Cold Water Clothes Washing		
Number of participants or units delivered:	4918		
Measure life (years):	0		

B. **TRC Results:**

TRC Benefits (\$):		Not yet available
TRC Costs (\$):		
	Utility program cost (less incentives):	\$ 500.00
	Participant cost:	\$ -
	Total TRC costs:	\$ 500.00
Net TRC (in year CDN \$):		-\$ 500.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		\$ -

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

Conservation Programs:

Demand savings (kW):	Summer	Not yet available
	Winter	Not yet available
	lifecycle	in year
Energy saved (kWh):	Not yet available	Not yet available
Other resources saved :	Not yet available	Not yet available
Natural Gas (m3):	Not yet available	Not yet available
Other (specify):	Not yet available	Not yet available

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):	
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D. Program Costs*:

Utility direct costs (\$):	Incremental capital:	\$	-
	Incremental O&M:	\$	500.00
	Incentive:	\$	-
	Total:	\$	500.00
Utility indirect costs (\$):	Incremental capital:		0
	Incremental O&M:		0
	Total:		0
Participant costs (\$):	Incremental equipment:		0
	Incremental O&M:		0
	Total:		0

E. Comments:

Coupon redemption results and resulting TRC calculated savings are not available. Coupon expiry date was February 28, 2006

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

Appendix B - Discussion of the Program

(complete this section for each program)

A. Name of the Program: Lighten Your Electricity Bill Coupon Program

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

An energy conservation program aimed at providing a coupon rebate to residential customers for the purchase of various energy saving products for the home. The coupon leaflet was included to residential billing insert and redeemable at Canadian Tire Stores. The rebates for products ranged from \$1.00 for an indoor timer to \$15.00 for a programmable thermostat. This program was offered by a number of LDC's. Results of the program are measured by the redemption of coupons submitted by the retailer.

Base case technology:	Incandescent Light Bulbs	Replace 5W Christmas Light:	Incandescent Mini Lights	Manual Thermostat	Manual Thermostat	Manual Operation	Manual Operation	Manual Operation	Natural Convection
Efficient technology:	Compact Fluorescent Lights	LED Christmas Lights	LED Christmas Lights	Progr. Therm. Heating	Progr. Therm. Cooling	Timer -Outdoor Light	Timer -Indoor Light	Timer-Indoor A/C	Ceiling fan
Number of participants or units deliv	472	65	65	6	15	15	5	5	6
Measure life (years):	4	30	30	18	18	20	20	20	20

B. **TRC Results:**

TRC Benefits (\$):	\$ 26,242.00
TRC Costs (\$):	
Utility program cost (less incentives):	\$ 1,153.00
Participant cost:	\$ 2,829.00
Total TRC costs:	\$ 3,982.00
Net TRC (in year CDN \$):	\$ 22,260.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ 6.59

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

Conservation Programs:

Demand savings (kW):	Summer	3.23
	Winter	14.81
	lifecycle	in year
Energy saved (kWh):	562621	62654
Other resources saved:		
Natural Gas (m3):		
Other (specify):		

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):	
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D. **Program Costs*:**

Utility direct costs (\$):	Incremental capital:	\$ -
	Incremental O&M:	\$ 1,153.00
	Incentive:	\$ 1,774.00
	Total:	\$ 2,927.00
Utility indirect costs (\$):	Incremental capital:	0
	Incremental O&M:	0
	Total:	0
Participant costs (\$):	Incremental equipment:	0
	Incremental O&M:	2829
	Total:	2829

E. **Comments:**

We have used the assumptions contained in the attached SeeLine report. We have included program incentive costs paid i

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

Appendix B - Discussion of the Program

(complete this section for each program)

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

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

A cooperative initiative with the CHEC group members. The intent is to provide a educational/resource for items relating to energy conservation for all of our customer classes. .

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	No existing Conservation Website		
Efficient technology:	Conservation Website		
Number of participants or units delivered:	0		
Measure life (years):	0		

B. **TRC Results:**

TRC Benefits (\$):		\$	-
TRC Costs (\$):			
	Utility program cost (less incentives):	\$	3,672.00
	Participant cost:	\$	-
	Total TRC costs:	\$	3,672.00
Net TRC (in year CDN \$):		-\$	3,672.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		\$	-

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

Conservation Programs:

Demand savings (kW):	Summer	0	
	Winter	0	
		lifecycle	in year
Energy saved (kWh):	0	0	
Other resources saved :			
Natural Gas (m3):	0	0	
Other (specify):	0	0	

Demand Management Programs:

Controlled load (kW):		0
Energy shifted On-peak to Mid-peak (kWh):	0	
Energy shifted On-peak to Off-peak (kWh):		0
Energy shifted Mid-peak to Off-peak (kWh):		0

Demand Response Programs:

Dispatchable load (kW):		0
Peak hours dispatched in year (hours):		0

Power Factor Correction Programs:

Amount of KVar installed (KVar):		0
Distribution system power factor at beginning of year (%):		0
Distribution system power factor at end of year (%):		0

Line Loss Reduction Programs:

Peak load savings (kW):			0
		<i>lifecycle</i>	<i>in year</i>
Energy savngs (kWh):	0		0

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		0
Energy generated (kWh):		0
Peak energy generated (kWh):		0
Fuel type:		0

Other Programs (specify):

Metric (specify):		0
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D. Program Costs*:

Utility direct costs (\$):	Incremental capital:	\$	-
	Incremental O&M:	\$	3,672.00
	Incentive:	\$	-
	Total:	\$	3,672.00
Utility indirect costs (\$):	Incremental capital:		0
	Incremental O&M:		0
	Total:		0
Participant costs (\$):	Incremental equipment:		0
	Incremental O&M:		0
	Total:		0

E. Comments:

The conservation website is under development. It is expected to be complete and operational by the end of the second quarter 2006. Included in costs here are all costs for the CHEC CD & M coordinator.

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