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

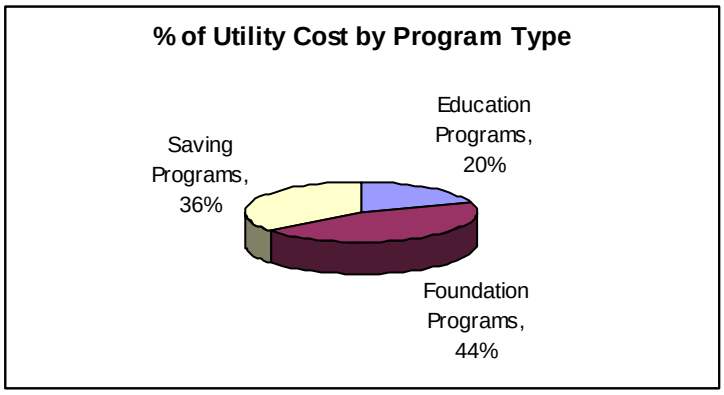
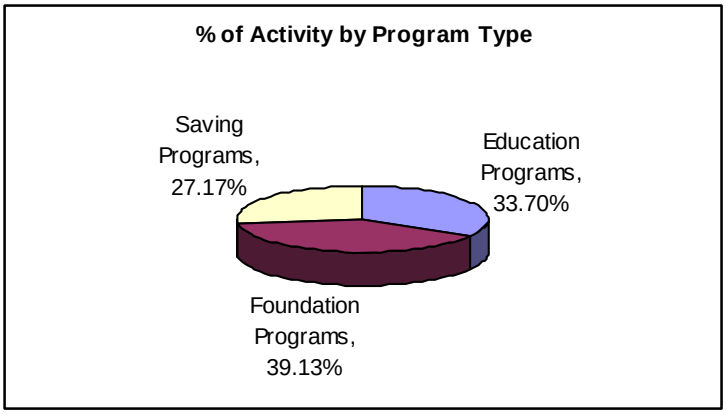


Figure 2



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.

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Appendix A - Evaluation of the CDM Plan

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

TOWNSHIP OF CENTRE WELLINGTON
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Ron Hallman, Director
Audrey McNiven, Director
George Pinkney, Director

Centre Wellington Hydro Ltd. –RP-2004-0203 \ ED-1999-0269
Conservation and Demand Annual Report

Introduction:

Centre Wellington Hydro as a member of the CHEC (Cornerstone Hydro Electric Concepts) Group is involved in several joint projects and initiatives. These programs are the start to a strong foundation in the development and implementation of lasting conservation and demand side management practices within our utility. Education and promotion of ideas, theories and simplified programs are the first steps in developing a CDM culture. We have started this with brochures. Further to the education program, we participated in a coupon program that was organized by Enershop.com which will have lasting results. The shared benefit of a coordinator to gather, manage and direct members of the group toward programs on a "Best Suit" approach has been shared by all. The design and development of a group website will have impacts well into the CDM future for our customers as well as anyone motivated to grasp the world wide resource of internet knowledge. This style of "get the idea out" not only enables our CHEC customers to read, implement and benefit from our initiatives but other people in the province or the world for that matter can see our approach. This will help the Minister to ensure her goals are met as well. As the government and our culture moves toward conservation, our commitment to SMART METER TECHNOLOGY is shown by our willingness to participate in the OUSM (Ontario Users Smart Metering) Group and our request for funding in the 2006 rate application for the implementation of smart meters. We are comfortable that the objectives of the group and those of the O.E.B. and the Minister of Energy are being met.

Evaluation of CDM Plan

The evaluation of the CDM plan and commitments at this point in time are brief. We are "on the way" and have laid the foundation for future programs. The Ontario Energy Board needs only to provide us with the "best funding" approach and all Ontario Utilities can expand on CDM programs well into the future. The actual TRC value of ground work programs is low or non-existent as you can well understand. However, the future will hold the benefit. As each customer hears and reads more information on CDM programs and the benefits to them as individuals, progress to a new level in CDM savings will materialize. No matter how small, each customer in his or her own way will help the overall success of the programs offered.

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Keith Roszell, Chair
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Discussion of Programs

Our coupon program taught us to include more retailer outlets and increase the length of the program and the offering. To manage many of the activities, it has become a burden to our utilities and we may need to employ professional CDM managers to ensure the "BEST VALUE" approach. There are many important factors that determine what time is spent, where and when. Without the direction and clarity from the regulator there is the possibility of lost interest due to time constraints.

Other programs are ground work for the future and time will define which ones lead the pack.

Lessons Learned

Expansion of the CDM programs throughout the province is a must for all, and LDCs must strive for the "best bang for our buck" approach. This however is difficult as each utility is evaluating what works for them and what can work in general for all customers no matter where they live. A more complete set of directions and an information sharing process across the province would benefit all electrical distributors and more importantly the customers we all serve. Perhaps a joint effort with the Ministry, the O.E.B. and the OPA would be in order. As we can now see, we must go further with these programs and some type of funding model is needed that includes the cost on already drained staff.

Conclusion

In conclusion, the overall start to CDM has been a success. To continue to develop and implement energy saving practices, more direction and resources need to become available in order for our Ontario Electrical Distributors to succeed.

Yours truly,

Florence Thiessen

Florence Thiessen, CGA
Vice President – Treasurer
Centre Wellington Hydro Ltd.

Appendix A - Evaluation of the CDM Plan

	Total	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	Web Page	Demand Response	Education & Promotion	Other 4
Net TRC value ($):	*$26,165*	$32,167	$583		$0		$0	-$2,839	$0	-$3,746	
Benefit to cost ratio:		$6.11	$8.30		N/A		N/A	N/A	N/A	N/A	
Number of participants or units delivered:	*566*	524	42		N/A		N/A	N/A	N/A	N/A	
Total KWh to be saved over the lifecycle of the plan (kWh):	*867,928.57*	845,356.98	22,571.59		N/A		N/A	N/A	N/A	N/A	
Total in year kWh saved (kWh):	*84,679.89*	83,927.50	752.39		N/A		N/A	N/A	N/A	N/A	
Total peak demand saved (kW):	*0.00*				N/A		N/A	N/A	N/A	N/A	
Total kWh saved as a percentage of total kWh delivered (%):	0.053%	0.052%	0.000%		N/A		N/A	N/A	N/A	N/A	
Peak kW saved as a percentage of LDC peak kW load (%):					N/A		N/A	N/A	N/A	N/A	
Gross in year C&DM expenditures ($):	*$13,081*	$4,540	$1,955					$2,839		$3,746	
Expenditures per KWh saved ($/kWh):*	$0.0151	$0.0054	$0.0866		N/A		N/A	N/A	N/A	N/A	
*Expenditures per KW saved ($/kW)**:*	$0.0000				N/A		N/A	N/A	N/A	N/A	

Utility discount rate (%):	8.56%

*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.

Annual Energy	160,365,716
Peak Demand	27,965

Appendix B - Discussion of the Program

(complete this section for each program)

A. **Name of the Program:** "Lighten Your Electricity Bill" (Residential)

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

Centre Wellington Hydro participated in a coupon campaign with Canadian Tire. Energyshop.com was engaged to design, deliver and track the program. Customers were provided with a bill insert containing energy-savings coupons. Customers had until December 31, 2005 to redeem their point of purchase coupons at any local Canadian Tire outlet. Canadian Tire sent the coupon to a redemption house, who then sorted by utility and product. This program helped increase public awareness of energy conservation and demand management, as well as contribute to the overall development of an energy conservation culture in Ontario.The program results showed a significant increase in total sales of the targetted products accross the province.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	See Attached report from Seeline Group for additional details.		
Efficient technology:			
Number of participants or units deliv	495		
Measure life (years):			

B. **TRC Results:**

TRC Benefits ($):	*$*	*38,459.00*
TRC Costs ($):		
Utility program cost (less incentives):	$	1,713.00
Participant cost:	$	4,579.00
Total TRC costs:	$	6,292.00
Net TRC (in year CDN $):	$	32,167.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$	6.11

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

Conservation Programs:

Demand savings (kW):	*Summer*	6.26	
	Winter	0	
	lifecycle	*in year*	
Energy saved (kWh):	*845,356.98*	83,927.50	
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 begining of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):	

D. **Program Costs*:**

Utility direct costs ($):	*Incremental capital:*	
	Incremental O&M:	$ 1,713.00
	Incentive:	$ 2,827.00
	Total:	$ 4,540.00
Utility indirect costs ($):	*Incremental capital:*	
	Incremental O&M:	
	Total:	
Participant costs ($):	*Incremental equipment:*	
	Incremental O&M:	*$4,579.00*
	Total:	$4,579.00

E. Comments:

The success of the program was directly related to the cooperative efforts of the 32 participating LDC's, Canadian Tire, EnergyShop.com, and the SeeLine Group. Many of our customers had thrown away their original coupons and contacted us asking for a replacement after hearing the advertisements on the radio, along with seeing additional information when visiting the Canadian Tire store. The lesson learned here, is for us to ensure we prepare additional advertising well in advance of running such a program to ensure customers are looking for their coupons when they open their monthly invoices.

After talking to other LDC's that had even higher results, we found that the primary reason for that was tied to incremental activities promoting the program. Therefore, we anticipate providing additional local resources to bolster the success of the next province wide collaborative program.

*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 Web Site (All Classes)

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

This particular program will provide the members of the CHEC group and their customers a common conservation WEB Page. The investment in this program will provide our collective customers with a one-stop location where they can find information and links to a wide variety of conservation initiatives, programs, and technologies. The program costs also cover the hiring an individual to help with developing and updating the web page and providing overall conservation activity support as we work through the steep learning curve of building and delivering conservation programs to our customers.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered:			
Measure life (years):			

B. **TRC Results:**

TRC Benefits ($):	*-$ 2,839.15*
TRC Costs ($):	
Utility program cost (less incentives):	
Participant cost:	
Total TRC costs:	
Net TRC (in year CDN $):	
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	

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

Conservation Programs:

		lifecycle	in year
Demand savings (kW):	*Summer*		
	Winter		
Energy saved (kWh):			
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 begining of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):	

D. **Program Costs*:**

Utility direct costs ($):	*Incremental capital:*	
	Incremental O&M:	$ 2,839.15
	Incentive:	
	Total:	$ 2,839.15
Utility indirect costs ($):	*Incremental capital:*	
	Incremental O&M:	
	Total:	
Participant costs ($):	*Incremental equipment:*	
	Incremental O&M:	
	Total:	

E. Comments:

The Web Page is still in development. The greatest benefit from this expenditure is the overall coordination of CDM activities for the collective 16 LDC's in the CHEC group. The individual hired to perform these duties has provided a common voice as a primary contact between the CHEC group and the various agencies such as the Ministry, the OPA, OEB, and the massive numbers of consultants and entities soliciting our members to purchase their services. The concept of a central contact for the CHEC group has allowed our members to continue with the rigorous requirements of their normal activities while at the same time provide our customers with some quality deliverables on the road to building a Conservation Culture in the Province.

*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:** Education & Promotion

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

Centre Wellington Hydro participated in a brochure program. The brochures were titled, "Conserve Energy and Save Money" and offered tips and facts to educate our customers. We mailed the brochures to all our customers as an insert with their monthly bills.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered:			
Measure life (years):			

B. **TRC Results:**

TRC Benefits ($):		*-$ 3,746.03*
TRC Costs ($):		
	Utility program cost (less incentives):	
	Participant cost:	
	Total TRC costs:	
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Conservation Programs:

Demand savings (kW):	*Summer*		
	Winter		
		lifecycle	*in year*
Energy saved (kWh):			
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 begining of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):	

D. **Program Costs*:**

Utility direct costs ($):	*Incremental capital:*	
	Incremental O&M:	$ 3,746.03
	Incentive:	
	Total:	$ 3,746.03
Utility indirect costs ($):	*Incremental capital:*	
	Incremental O&M:	
	Total:	
Participant costs ($):	*Incremental equipment:*	
	Incremental O&M:	
	Total:	

E. Comments:

*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:** Decorative Lighting Efficiency

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

We exchanged some seasonal incandescent lighting to LED lighting.

Measure(s):

	Measure 1	Measure 2	Measure 3
Base case technology:	Incandescent Decorative Lighting	0.00	0.00
Efficient technology:	LED Decorative Lighting	0.00	0.00
Number of participants or units delivered:	42.00	0.00	0.00
Measure life (years):	30.00	0.00	0.00

B. **TRC Results:**

TRC Benefits ($):		*$ 662.42*	
Measure's Costs ($):			
	Utility program cost (less incentives):	$ 79.80	0
	Participant cost:	$ -	0
	Total TRC costs:	$ 79.80	
Net TRC (in year CDN $):		$582.62	
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		8.30	

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

Conservation Programs:

Demand savings (kW):	*Summer*	0.00	
	Winter	0.33	
	lifecycle	*in year*	
Energy saved (kWh):	*22,571.59*	752.39	
Other resources saved :			
Natural Gas (m3):	0	0	
Water (l)	0	0	
Expenditures per kWh Saved ($/kWh)	$ 0.0866		
Expenditures per kW Saved ($/kW)	#DIV/0!		

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):	

D. **Program Costs*:**

Utility direct costs ($):	*Incremental capital:*	$ -	
	Incremental O&M:	$ 1,955.49	0
	Incentive:	$ -	
	Total:	$ 1,955.49	
Utility indirect costs ($):	*Incremental capital:*	$ -	
	Incremental O&M:	$ -	
	Total:	$ -	
Total Utility Cost of Program		$ 1,955.49	
Participant costs ($):	*Incremental equipment:*	$ -	
	Incremental O&M:	$ -	0
	Total:	$ -	
Grand Total Program Cost		$ 1,955.49	

E. Comments:

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