

Tay Hydro Electric Distribution Company Inc.

RP-2004-0203

EB-2004-0512

2005 Annual Report of CDM Initiatives

Introduction

Tay Hydro in its commitment to investing the equivalent of one year of the third installment of its incremental market adjusted revenue requirement, has developed and partially implemented four programmes over the period December 2004 to December 2005. Tay Hydro has done this by designing, developing and implementing CDM programmes as described below. As these programmes continue to proceed, Tay Hydro will be monitoring their effectiveness to ensure maximum conservation benefits.

This report outlines the programmes and their initial successes in the year 2005.

Evaluation of CDM Plan

Tay Hydro's CDM plan consists of four main components:

1. Education and Promotion

Through the use of bill stuffers, coupons, and energy conservation, messages residential and commercial consumers were informed and educated about conservation tips and products available to help them reduce their electricity usage. The coupon programme was aimed toward the residential sector.

2. School Conservation and Safety Promotion

Provide educational and information sessions in the primary schools to instill at an early age, the need for wise energy usage. This would ensure the children promote conservation at home and reduce residential consumption. The in-school sessions would also involve a component on electricity safety.

3. System Optimization

Perform a distribution system study to determine where savings can be realized to reduce losses. Recommendations from the study would be acted upon to realize the most cost effective expected savings and reduce the amount of electricity wasted through losses in the distribution system. This will benefit all classes of customers. Expected areas of savings would be through better balancing of loads, changing open points in the distribution system, upgrading wire sizes and changing to low-loss transformers.

4. Plan Research, Design and Development

Design the plan, and research and evaluate the programmes using an external consultant and internal staff.

Appendix "A", attached, includes the evaluation of the programmes.

The lifecycle energy savings are 138,604 kWh with a demand saving of 59.36 kW. In the residential sector the gross expenditure was \$0.0643 per kWh, with a benefit to cost ratio of 6.01, and a total TRC net value of \$7,618.00.

Discussion of the Programmes

The main part of Tay Hydro's conservation efforts have been the education of the energy using customers. Tay Hydro believes that informed users will make the right decisions to minimize their usage of electricity. Only using what is required, without any wastage, is good for the Ontario electricity system, the environment, and especially for the consumers' "pocket book". An informed consumer will reduce their usage of this valuable resource.

The education focus used at Tay Hydro is two pronged: the students and the parents. Tay Hydro was at all the primary schools and presented an entertaining programme to grades 4 through 8. The activities and information were enthusiastically received by students and teachers alike. Not only were "ways-to-save" talked about, but why conservation is good for the world we live in. We found that the young people are very interested and concerned about energy usage, wastage and its affects on their community and their health. The school assemblies were a success.

The in-the-schools presentations also featured an electricity safety component, a topic Tay Hydro continues to practice, and expound to everyone.

The parents receive conservation education through brochures and coupons. The brochures provide them with suggested ways to reduce energy usage and, most

importantly to them, ways to lower their Tay Hydro bills. The coupons offer savings on the purchase of various items such as: compact fluorescent lights, programmable thermostats, timers, ceiling fans and LED lights. The usage of these coupons was tracked and we are very encouraged by the number of redemptions to date; another success.

The combination of the school **and** the parent education programmes, complement each other. This two pronged approach reinforces what has been heard and seen on both sides. The dialogue between parents and children regarding energy conservation, helping the environment, family health, and saving money all contribute to the effectiveness of the Tay Hydro approach.

The electricity distribution system Tay Hydro purchased from Hydro One Networks, back in 1999, has shown to be ineffective in minimizing system losses. We are finalizing the analysis of the distribution system, which will then provide recommendations for changes and/or upgrades. The next step will be the implementation of the recommendations, and subsequently the savings of energy, which currently is being lost into the atmosphere. We estimate that there will be a 1% saving of all energy flowing through the Tay Hydro distribution system.

See the attached Appendix "B"s. These provide the detailed analysis for all the programmes. The Education and Promotion actual programme costs are included in the analysis titled "Education and Promotion – Overall". The advertising and promotional costs cannot be attributed to any particular programme since they were all advertised together; so these costs are all lumped together under Overall. For each of the coupon programmes, the detailed analysis according to the TRC Guide is shown on individual Appendix "B"s.

Lessons Learned

The residential programmes were successful when analyzed under the TRC guidelines. The participation by the consumers was less than what was hoped. Increased advertising and promotion would have yielded even better results.

The System Optimization programme is in the research phase. Study results are still being gathered. It is expected that definite recommendations for improved system operation will be forthcoming. The implementation of the recommendations will provide the kWh saving to justify the initial expenditures.

Conclusion

Tay Hydro's experiences with the CDM programmes have been quite positive, and we have encountered no barriers in their execution. The realization of the System Optimization Study recommendations will provide even greater conservation saving than Tay Hydro has experienced in the first year of the CDM Plan.

March 2006

Attachments

- Appendix "A"
- Appendix "B"s
- PDF electronic copy
- Excel electronic copy of Appendices only

Appendix A - Evaluation of the CDM Plan

	Total	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	Other 1	Other 2	Other 3	Other 4
<i>Net TRC value (\$):</i>	7618	\$7,618									
<i>Benefit to cost ratio:</i>	6.01	6.01									
<i>Number of participants or units delivered:</i>	102	102									
<i>Total kWh to be saved over the lifecycle of the plan (kWh):</i>	138604	138604									
<i>Total in year kWh saved (kWh):</i>	19183	19183									
<i>Total peak demand saved (kW):</i>	59.36	59.36									
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.04	0.04									
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	0.6	0.6									
<i>Gross in year C&DM expenditures (\$):</i>	\$ 34,829.15	\$8,917					\$25,912				
<i>Expenditures per kWh saved (\$/kWh)*:</i>	\$ 0.251	\$0.0643									
<i>Expenditures per kW saved (\$/kW)**:</i>	\$ 586.74	\$150.22									
<i>Utility discount rate (%):</i>	7.88										

*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: Education and Promotion - CFL 3 pack

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

Residential consumers received a bill stuffer coupon with an incentive if they purchased a 15w CFL 3 pack. The consumers replacing a regular 60w incandescent light with the 15w CFL would see energy savings, and the electricity system in Ontario would benefit from reduced demand and energy usage.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	139.2 kWh per year x 3		
Efficient technology:	34.8 kWh per year x 3		
Number of participants or units delivered:	53		
Measure life (years):	4		

B. TRC Results:

TRC Benefits (\$):	\$	3,741.34
TRC Costs (\$):	\$	286.20
	Utility program cost (less incentives):	
	Participant cost:	
	Total TRC costs:	\$ 286.20
Net TRC (in year CDN \$):	\$	3,455.14
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$	13.07

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

Conservation Programs:

Demand savings (kW):	Summer	
	Winter	
	lifecycle	in year
Energy saved (kWh):	59,759	14,940
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):		
	<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:	
	Incentive:	
	Total:	
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:** Education and Promotion - LED Christmas lights replacing 5 watt lights

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

Residential consumers received a bill stuffer coupon with an incentive if they purchased LED Christmas lights to replace existing 5 watt lights. The consumers would see energy savings, and the electricity system in Ontario would benefit from reduced demand and energy usage, plus avoided capacity additions.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	19.4 kWh per year		
Efficient technology:	0.54 kWh per year		
Number of participants or units delivered:	25		
Measure life (years):	30		

B. **TRC Results:**

TRC Benefits (\$):	\$	533.71
TRC Costs (\$):	\$	47.50
Utility program cost (less incentives):		
Participant cost:		
Total TRC costs:	\$	47.50
Net TRC (in year CDN \$):	\$	486.21
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$	11.24

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

Conservation Programs:

Demand savings (kW):	Summer	3.91
	Winter	
	lifecycle	in year
Energy saved (kWh):	8,957	448
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):		
	<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:	
	Incentive:	
	Total:	
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:** Education and Promotion - Outdoor Timer

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

Residential consumers received a bill stuffer coupon with an incentive if they purchased an outdoor timer to control two existing 75w floodlights. The consumers would see energy savings by having their outdoor lights only turned on during darkness and/or when motion was detected, and the electricity system in Ontario would benefit from reduced demand and energy usage, plus avoided capacity additions.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	876.0 kWh per year		
Efficient technology:	584.0 kWh per year		
Number of participants or units delivered:	3		
Measure life (years):	20		

B. **TRC Results:**

TRC Benefits (\$):	\$	679.46
TRC Costs (\$):	\$	54.00
Utility program cost (less incentives):		
Participant cost:		
Total TRC costs:	\$	54.00
Net TRC (in year CDN \$):	\$	625.46
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$	12.58

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

Conservation Programs:

Demand savings (kW):	Summer	55.45
	Winter	
	lifecycle	in year
Energy saved (kWh):	15,768	788
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):		
	<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:	
	Incentive:	
	Total:	
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:** Education and Promotion - Overall

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

Residential consumers received a bill stuffer coupon with an incentive if they purchased various electricity conservation items for their home. The consumers would see energy savings, and the electricity system in Ontario would benefit from reduced demand and energy usage, plus avoided capacity additions. Conservation flyers were also distributed via bill stuffers. Four main coupons included LED Christmas lights replacement, CFL replacing 60w incandescent bulbs, outdoor timers for flood lights and programmable thermostats to better control their summer air conditioning.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered:	4700		
Measure life (years):			

B. **TRC Results:**

TRC Benefits (\$):	
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 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): 4700 bill stuffers delivered to every consumer

D. **Program Costs*:**

Utility direct costs (\$):	<i>Incremental capital:</i>	
	<i>Incremental O&M:</i>	\$ 3,828.10
	<i>Incentive:</i>	
	<i>Total:</i>	\$ 3,828.10
Utility indirect costs (\$):	<i>Incremental capital:</i>	
	<i>Incremental O&M:</i>	
	<i>Total:</i>	
Participant costs (\$):	<i>Incremental equipment:</i>	
	<i>Incremental O&M:</i>	
	<i>Total:</i>	

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:** Education and Promotion - Programmable Thermostats for summer A/C

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

Residential consumers received a bill stuffer coupon with an incentive if they purchased a programmable thermostat. The consumers would see energy savings by having their air conditioning turned off (or lowered) when the consumer was not at home, and the electricity system in Ontario would benefit from reduced demand and energy usage, plus avoided capacity additions.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	1964.0 kWh per year		
Efficient technology:	1805.0 kWh per year		
Number of participants or units delivered:	21		
Measure life (years):	18		

B. **TRC Results:**

TRC Benefits (\$):	\$	4,185.31
TRC Costs (\$):	\$	1,134.00
Utility program cost (less incentives):		
Participant cost:		
Total TRC costs:	\$	1,134.00
Net TRC (in year CDN \$):	\$	3,051.31
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$	3.69

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

Conservation Programs:

Demand savings (kW):	Summer	55.45
	Winter	
	<i>lifecycle</i>	<i>in year</i>
Energy saved (kWh):	54,120	3,007
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):		
	<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:	
	Incentive:	
	Total:	
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:** CDM Plan Development

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

Using an external consultant and internal staff to design the Plan and research programmes.

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 (\$):	
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 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): 4700 bill stuffers delivered to every consumer

D. **Program Costs*:**

Utility direct costs (\$):	Incremental capital:	
	Incremental O&M:	\$ 1,375.02
	Incentive:	
	Total:	\$ 1,375.02
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:** School Conservation and Safety Promotion

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

All of the schools in Tay Hydro's service area were visited, and a 45 minute presentation was made to all the students, and their teachers, in grades 4 to 8. Over 600 students heard, and saw, demonstrations on home energy conservation tips. Those in attendance would return home and discuss with their parents what they learned. The students were challenged to make at least one change at home to save electricity. In addition the presentation included electricity safety information and demonstrations.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered:	600		
Measure life (years):			

B. **TRC Results:**

TRC Benefits (\$):	
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 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):	600 students and teachers
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D. **Program Costs*:**

Utility direct costs (\$):	Incremental capital:	
	Incremental O&M:	\$ 3,714.03
	Incentive:	
	Total:	\$ 3,714.03
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:** System Optimization Study

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

Perform a distribution system study to determine where savings can be realized to reduce losses. Recommendations from the study would be acted upon to realize the most cost effective expected savings and reduce the amount of electricity wasted through they distribution system. This will benefit all classes of customers. Expected areas of savings would be through better balancing of loads, changing open points in the distribution system, upgrading wire sizes and changing to low loss transformers.

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 (\$):	
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 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): 4700 bill stuffers delivered to every consumer

D. **Program Costs*:**

Utility direct costs (\$):	Incremental capital:	
	Incremental O&M:	\$ 25,912.00
	Incentive:	
	Total:	\$ 25,912.00
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.