



TILLSONBURG HYDRO INC.

RP-2004-0203\EB-2005-0192

2007 Annual Report CDM Third Tranche Funding

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1. Introduction:

Tillsonburg Hydro Inc. is pleased to submit this third annual CDM report. Tillsonburg Hydro's Conservation and Demand Management programs and spending in 2007 all relate to the "third tranche" programs as were approved by the OEB in March of 2005. The approved total budget of \$247,903 is represented in these programs. The total amount of actual spending in 2007 was \$85,220 bringing the total life to date spending to \$247,903. All third tranche spending was completed in 2007.

2. Evaluation of our CDM Plan

Continuing with the delivery of our CDM Plan to the residential sector in 2007 involving partnerships with the OPA , Tillsonburg Hydro also implemented the System Optimization portion to not only reduce line losses to our system but also reduce a percentage of our overall peak load.

3. Discussion of Programs

- **System Optimization was accomplished through the decommissioning of two old substations operating at 4,160 volts. This showed a direct reduction on the system peak with energy savings of approximately 570,000 kWh every year.**
- **Funding for a residential solar energy system was provided to a contractor to promote the awareness of green energy with the idea to lessen Tillsonburg Hydro's demand growth going forward.**

4. Lessons Learned

Conservation continues to grow in the Tillsonburg area as seen through the partnership programs Tillsonburg Hydro incorporated again this year.

Although efforts in programs such as the Summer Savings program, The Great Refrigerator Roundup and ERIP add significantly to conservation, distribution system optimization directly contributes to the reduction of system peaks and energy going forward. This can be seen in Tillsonburg Hydro's continued reduction in line losses.

5. Conclusion

It is Tillsonburg Hydro's intention to continue offering these successful programs through partnerships and customer education to help drive the Province's initiative to produce a culture of conservation. Also through our programs we have reinforced the efficiency of our system. Spending of \$85,220 in 2007 and life to date spending of \$247,902 represents 100% of our CDM amount.

Sincerely,

**Bryan Drinkwater
Operations Manager
Tillsonburg Hydro Inc.**

Appendix A - Evaluation of the CDM Plan

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

	⁵ Cumulative Totals Life-to-date	Total for 2007	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	⁴ Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	\$ 348,594	-\$ 83,325	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (78,762)		\$ (4,562)	\$ -
<i>Benefit to cost ratio:</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>	19,441										
<i>Lifecycle (kWh) Savings:</i>	44,372,699	17,187,120	0	0	0	0	0	17,187,120		0	0
<i>Report Year Total kWh saved (kWh):</i>	2,484,520	572,904	0	0	0	0	0	572,904		0	0
<i>Total peak demand saved (kW):</i>	694.02	57	0	0	0	0	0	57		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	1.04%	0.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%		0.00%	0.00%
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.12%		0.00%	0.00%
¹ <i>Report Year Gross C&DM expenditures (\$):</i>	\$ 247,902	\$ 85,220	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78,762	\$ 1,895	\$ 4,562	\$ -
² <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.01	\$ 0.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.00		\$ -	\$ -
³ <i>Expenditures per KW saved (\$/kW):</i>	\$ 357.20	\$ 1,487.25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,374.56		\$ -	\$ -
<i>Utility discount rate (%):</i>	7.63										

¹ Expenditures are reported on accrual basis.

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

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

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

⁵ Includes total for the reporting year, plus prior year, if any (for example, 2007 CDM Annual report for third tranche will include 2006, 2005 and 2004 numbers, if any).

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Smart Meter Initiatives

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

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered life to date			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 1,895.47	64,440.43
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ 1,895.47	64,440.43
Net TRC (in year CDN \$):		
		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		
		

C. Results: (one or more category may apply)	Cumulative Results:	
Conservation Programs:		
Demand savings (kW):	Summer	
	Winter	
	lifecycle	
Energy saved (kWh):	in year	
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 savings (kWh):			

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>	\$ 1,895.47	\$ 64,440.43
	<i>Incremental O&M:</i>		
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 1,895.47	\$ 64,440.43
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** System Opimization

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

System Optimization was accomplished through the decommissioning of two old substations operating at 4,160 volts. This showed a direct reduction on the system peak with energy savings of approximately 570,000 kWh every year.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:	Removal of substation		
Number of participants or units delivered for reporting year:	2		
Measure life (years):	30		
Number of Participants or units delivered life to date			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	0
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 78,762.17	153,369
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ 78,762.17	153,369
Net TRC (in year CDN \$):	-\$ 78,762.17	-\$ 153,369.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ -	0.00

C. Results: (one or more category may apply)	Cumulative Results:	
Conservation Programs:		
Demand savings (kW):	Summer	0
	Winter	0
	<i>lifecycle</i>	<i>in year</i>
Energy saved (kWh):	0	0
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):		57.3
	<i>lifecycle</i>	<i>in year</i>
Energy savings (kWh):	17,187,120	572,904

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. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 78,762.17	\$ 153,369.00
	Incentive:		
	Total:	\$ 78,762.17	\$ 153,369.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Solar Energy System

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

Funding provided for a residential solar project. Mainly to provide an awareness to alternate energy.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	1		
Measure life (years):	25		
Number of Participants or units delivered life to date			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	0
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	0
Incremental Measure Costs (Equipment Costs)	\$ 4,562.36	4562.36
Total TRC costs:	\$ 4,562.36	4,562
Net TRC (in year CDN \$):	-\$ 4,562.36	-\$ 4,562.36
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ -	0.00

C. Results: (one or more category may apply)	Cumulative Results:	
Conservation Programs:		
Demand savings (kW):	Summer	0
	Winter	0
	lifecycle	in year
Energy saved (kWh):	0	0
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 savings (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. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Incentive:</i>	\$ 4,562.36	\$ 4,562.36
	<i>Total:</i>	\$ 4,562.36	\$ 4,562.36
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

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

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

Appendix C - Program and Portfolio Totals

Report Year: 2007

1. Residential Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Residential	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Residential Indirect Costs not attributable to any specific program	→							
Total Residential TRC Costs		\$ -						
**Totals TRC - Residential	\$ -	\$ -	\$ -	0.00				

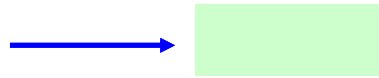
2. Commercial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Commercial	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -

Commercial Indirect Costs not attributable to any specific program



Total TRC Costs		\$	-			
**Totals TRC - Commercial	\$	-	\$	-	\$	0.00

3. Institutional Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Institutional	\$	-	\$	-	0	0	0	\$ -

Institutional Indirect Costs not attributable to any specific program



Total TRC Costs		\$	-			
**Totals TRC - Institutional	\$	-	\$	-	\$	0.00

4. Industrial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				

Name of Program I			\$	-	0.00				
Name of Program J			\$	-	0.00				
*Totals App. B - Industrial	\$	-	\$	-	0.00	0	0	0	\$ -
Industrial Indirect Costs not attributable to any specific program	→								
Total TRC Costs		\$	-						
**Totals TRC - Industrial	\$	-	\$	-	0.00				

5. Agricultural Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Agricultural	\$	-	\$ -	0.00	0	0	0	\$ -
Agricultural Indirect Costs not attributable to any specific program	→							
Total TRC Costs		\$	-					
**Totals TRC - Agricultural	\$	-	\$ -	0.00				

6. LDC System Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
System Optimization		\$ 78,762	-\$ 78,762	0.00	572,904	17,187,120	57	\$ 78,762
Name of Program B			\$ -	0.00				

Name of Program C			\$	-	0.00				
Name of Program D			\$	-	0.00				
Name of Program E			\$	-	0.00				
Name of Program F			\$	-	0.00				
Name of Program G			\$	-	0.00				
Name of Program H			\$	-	0.00				
Name of Program I			\$	-	0.00				
Name of Program C			\$	-	0.00				
*Totals App. B - LDC System	\$ -	\$ 78,762	-\$ 78,762	0.00		572,904	17,187,120	57	\$ 78,762

LDC System Indirect Costs not attributable to any specific program



Total TRC Costs		\$ 78,762			
**Totals TRC - LDC System	\$ -	\$ 78,762	-\$ 78,762	0.00	

7. Smart Meters Program

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

Report Year Gross C&DM Expenditures (\$) 1,895

8. Other #1 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Solar Energy System		\$ 4,562	-\$ 4,562	0.00				\$ 4,562
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Other #1	\$ -	\$ 4,562	-\$ 4,562	0.00	0	0	0	\$ 4,562

Other #1 Indirect Costs not attributable to any specific program



Total TRC Costs		\$ 4,562			
**Totals TRC - Other #1	\$ -	\$ 4,562	-\$ 4,562	0.00	

9. Other #2 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Other #2	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Other #2 Indirect Costs not attributable to any specific program</i>								
Total TRC Costs		\$ -						
**Totals TRC - Other #2	\$ -	\$ -	\$ -	0.00				

LDC's CDM PORTFOLIO TOTALS

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
*TOTALS FOR ALL APPENDIX B	\$ -	\$ 83,325	\$ -83,325	0.00	\$ 572,904	\$ 17,187,120	\$ 57	\$ 85,220
<i>Any other Indirect Costs not attributable to any specific program</i>								
TOTAL ALL LDC COSTS		\$ 83,325						
**LDC PORTFOLIO TRC	\$ -	\$ 83,325	\$ -83,325	0.00				

* The savings and spending information from this row is to be carried forward to Appendix A.

** The TRC information from this row is to be carried forward to Appendix A.