

**2006 ANNUAL REPORT**

**CDM THIRD TRANCHE FUNDING**

**SIOUX LOOKOUT HYDRO INC.**

## **Introduction**

Sioux Lookout Hydro applied to the Ontario Energy Board on December 7, 2004 for approval of their CDM Plans. The programs submitted for approval were:

1. Line Loss Reduction Program: Involving upgrades to system voltages, conductors and transformers.
2. Municipal Street Light Relamping Program: Change 250 Watt High Pressure Sodium bulbs to 225 Watt High Pressure Sodium bulbs and also exchange 400 Watt metal halide bulbs to 360 Watt metal halide bulbs in our Municipal Recreation Centre.
3. Information Program on Energy Management: This would be in conjunction with other LDCs in the Northwest.

Of the above three programs the Line Loss Reduction Program involving the upgrade to system voltages was completed and reported on in the 2005 Annual Report. The Municipal Street Light Relamping Program has been cancelled due to discontinuance of the recommended low wattage bulb for street lights. The Information program on Energy Management was implemented and will be on-going.

## **Evaluation of the CDM Plan**

Sioux Lookout Hydro Inc. implemented the Energy Management program in 2006. We were involved in the Ontario Power Authority and their EKC campaign. We also held a draw and randomly distributed 100 energy savings kits which included a shower timer, window insulator material, switch/outlet sealers, v-seal weather stripping, sink heads, temperature strips, hot water gauge testing strip, refrigerator thermometer strip and water/energy testing bag.

Please find attached Appendix c and Appendix A for complete evaluations.

## **Discussion of the Programs**

Please see Appendix B for the discussion of the Information Program on Energy Management. The TRC Benefits were calculated using the OPA results from the 2006 EKC program and adjusting their calculated total costs by using the percentage of Sioux Lookout Hydro participants to the total participants in Ontario. The results from the energy savings kits distributed have no quantifiable characteristics, therefore they are not included in the TRC calculation.

## **Lessons Learned**

Approximately 19% of Sioux Lookout Hydro's residential customers utilized the coupons supplied by the Ontario Power Authority. The Total Resource Cost Benefits are approximately \$26,000 with a total annual kWh savings of 43650 for this program. Based on these results, Sioux Lookout Hydro will continue to work with the OPA in educating our customers in energy efficiency and promoting energy saving products in 2007. We hope to see an increase in these results for the future.

**Conclusion**

We are continuing our customer education through the OPA EKC 2007 campaign. We will be working in conjunction with them and entering into the refrigerator buy-back program. The funds allocated to our Municipal Street Light Relamping will be used towards the Information Program on Energy Management through various giveaways as well as the refrigerator buy-back program.

Signed this 26<sup>th</sup> day of March 2007 by:

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Gord Maki, President/CEO  
Sioux Lookout Hydro Inc.

# Appendix C - Program and Portfolio Totals

Report Year: 2006

## 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 (\$)
Customer Information Program	\$ 29,720	\$ 3,693	\$ 26,027	8.05	43,648	489,863	13	\$ 4,018
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B - Residential</b>	\$ 29,720	\$ 3,693	\$ 26,027	8.05	43,648	489,863	13	\$ 4,018
Residential Indirect Costs not attributable to any specific program	→							
<b>Total Residential TRC Costs</b>		\$ 3,693						
<b>**Totals TRC - Residential</b>	\$ 29,720	\$ 3,693	\$ 26,027	8.05				

## 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				
<b>*Totals App. B - Commercial</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -

Commercial Indirect Costs not attributable to any specific program



<b>Total TRC Costs</b>		\$	-			
<b>**Totals TRC - Commercial</b>	\$	-	\$	-	\$	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				
<b>*Totals App. B - Institutional</b>	\$	-	\$	-	0	0	0	\$ -

Institutional Indirect Costs not attributable to any specific program



<b>Total TRC Costs</b>		\$	-			
<b>**Totals TRC - Institutional</b>	\$	-	\$	-	\$	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				
<b>*Totals App. B - Industrial</b>	\$	-	\$	-	0.00	0	0	0	\$ -
Industrial Indirect Costs not attributable to any specific program	→								
<b>Total TRC Costs</b>		\$	-						
<b>**Totals TRC - Industrial</b>	\$	-	\$	-	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				
<b>*Totals App. B - Agricultural</b>	\$	-	\$	-	0	0	0	\$ -
Agricultural Indirect Costs not attributable to any specific program	→							
<b>Total TRC Costs</b>		\$	-					
<b>**Totals TRC - Agricultural</b>	\$	-	\$	-	0.00			

## 6. LDC System Programs

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

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

	TRC Benefits (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 C			\$	-	0.00				
<b>*Totals App. B - LDC System</b>	\$	-	\$	-	0.00	0	0	0	\$ -

LDC System Indirect Costs not attributable to any specific program →

<b>Total TRC Costs</b>		\$	-						
<b>**Totals TRC - LDC System</b>	\$	-	\$	-	0.00				

## 7. Smart Meters Program

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

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

## 8. Other #1 Programs

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

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

	TRC Benefits (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			
<b>*Totals App. B - Other #1</b>	\$	-	\$	-	0.00	0	0	\$ -


Other #1 Indirect Costs not attributable to any specific program →

<b>Total TRC Costs</b>		\$	-					
<b>**Totals TRC - Other #1</b>	\$	-	\$	-	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				
<b>*Totals App. B - Other #2</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Other #2 Indirect Costs not attributable to any specific program</i>								
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Other #2</b>	\$ -	\$ -	\$ -	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 (\$)
<b>*TOTALS FOR ALL APPENDIX B</b>	\$ 29,720	\$ 3,693	\$ 26,027	8.05	\$ 43,648	\$ 489,863	\$ 13	\$ 4,018
<i>Any other Indirect Costs not attributable to any specific program</i>								
<b>TOTAL ALL LDC COSTS</b>		\$ 3,693						
<b>**LDC' PORTFOLIO TRC</b>	\$ 29,720	\$ 3,693	\$ 26,027	8.05				

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

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



## Appendix A - Evaluation of the CDM Plan

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

	<sup>5</sup> Cumulative Totals Life-to-date	Total for 2006	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	26027	\$ 26,027	\$ 26,027	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Benefit to cost ratio:</i>	8.05	8.05	8.05	0.00	0.00	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>	524	524									
<i>Lifecycle (kWh) Savings:</i>	489863	489,863	489,863	0	0	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	43648	43,648	43,648	0	0	0	0	0		0	0
<i>Total peak demand saved (kW):</i>	13	13	13	0	0	0	0	0		0	0
<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>											
<sup>1</sup> <i>Report Year Gross C&amp;DM expenditures (\$):</i>	4018	\$ 4,018	\$ 4,018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<sup>2</sup> <i>Expenditures per kWh saved (\$/kWh):</i>	0.01	\$ 0.01	\$ 0.01	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<sup>3</sup> <i>Expenditures per kW saved (\$/kW):</i>	314.89	\$ 314.89	\$ 314.89	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Utility discount rate (%):</i>	4										

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

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

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

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

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

# Appendix B - Discussion of the Program

A. **Name of the Program:** Customer Information Program

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

Educate consumers on energy saving products and using energy wisely. Is in conjunction with the Ontario Power Authority and the Every Kilowatt Counts Campaign which is on-going in 2007. As well as taking part in the refrigerator buy-back program in 2007.

Inputs:

**Discount Rate**                      **4.00%**

Below is the number of coupons redeemed for Sioux Lookout Hydro

<u>Products</u>	<u>Number of Coupons</u>
<b>Baseboard Programmable Thermostats</b>	<b>2</b>
<b>Dimmers</b>	<b>0</b>
<b>Energy Star CFL's</b>	<b>105</b>
<b>Motion Sensor Light Switch</b>	<b>6</b>
<b>Programmable Thermostat</b>	<b>19</b>
<b>Seasonal LED Lights</b>	<b>292</b>

**Program Costs\*:**    **\$    1,948**

\*Program costs were calculated using the total costs for the 2006 EKC program of \$5089954 and multiplying it by the percentage of Sioux Lookout Hydro coupons redeemed (424/1107660).

TRC Calculated results:

<b>Fall EKC</b>		
<b>Technology</b>	<b>Number of Participants</b>	<b>Free Ridership</b>
Compact Fluorescent Bulbs	300	10.00%
LED Christmas Lights (indoor or outdoor) Replacing 5w Christmas Lights C-7 (25 Lights)	146	5.00%
LED Christmas Lights (indoor or outdoor) Replacing Incandescent Mini Lights	146	5.00%
Programmable Thermostat - Space Heating, Existing Single Family Detached	3	10.00%
Programmable Thermostat - Space Cooling, Existing Single Family Detached	9	10.00%
pStat Baseboard	1	10.00%
Dimmer	0	10.00%
Motion Sensor	6	10.00%

Fall EKC					
Technology	Summer Peak kW Savings	Winter Peak kW Savings	Annual kWh Savings in Year	Measure Life	Lifecycle kWh Savings
Compact Fluorescent Bulbs	0	6.22	28,216	4	112,864.75
LED Christmas Lights (indoor or outdoor) Replacing 5w Christmas Lights C-7 (25 Lights)	0.00	2.64	5847.30	30	175,419.00
LED Christmas Lights (indoor or outdoor) Replacing Incandescent Mini Lights	0.00	0.97	2233.80	30	67,014.00
Programmable Thermostat - Space Heating, Existing Single Family Detached	0.00	0.51	4337.76	18	78,079.60
Programmable Thermostat - Space Cooling, Existing Single Family Detached	1.25	0.00	1224.27	18	22,036.94
pStat Baseboard	0.00	0.45	659.84	18	11,877.03
Dimmer	0.00	0.00	0.00	10	0.00
Motion Sensor		0.73	1128.60	20	22,572.00
<b>Total</b>	<b>1.25</b>	<b>11.51</b>	<b>43,648</b>		<b>489,863</b>

Fall EKC					
Technology	TRC Benefits	Incremental Equipment Costs	Program Costs	TRC Net Benefits	TRC B/C Ratio
Compact Fluorescent Bulbs	\$6,701.22	\$486.49		\$6,215	13.77
LED Christmas Lights (indoor or outdoor) Replacing 5w Christmas Lights C-7 (25 Lights)	\$10,593	\$277		\$10,316	38.19
LED Christmas Lights (indoor or outdoor) Replacing Incandescent Mini Lights	\$4,037	\$277		\$3,760	14.55
Programmable Thermostat - Space Heating, Existing Single Family Detached	\$4,519	\$177		\$4,342	25.46
Programmable Thermostat - Space Cooling, Existing Single Family Detached	\$2,260	\$462		\$1,798	4.89
pStat Baseboard	\$748	\$27		\$721	27.69
Dimmer	\$0	\$0		\$0	#DIV/0!
Motion Sensor	\$862	\$38		\$824	22.80
Utility Program Costs			\$1,948.00		
<b>Total</b>	<b>\$29,720</b>	<b>\$1,745</b>	<b>\$1,948</b>	<b>\$26,026</b>	<b>15.26</b>