



***Greater Sudbury Hydro Inc./
Hydro du Grand Sudbury Inc.***

Conservation and Demand Annual Report

2008 Annual Report

CDM Third Tranche Funding

RP-2004-0203 \ EB # ed2002-0559

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Introduction

The Ontario Government sought to amend the *Ontario Energy Board Act, 1998*, to include Conservation and Demand Management activities. Recognizing problems with existing nuclear plants and lack of investment in new generating plants, it was realized that conservation measures were essential in Ontario. The result of which – on December 9, 2004, the Ontario Government passed Bill 100, the *Electricity Restructuring Act, 2004*. Basically, this amendment is to reorganize Ontario's electricity system to more effectively address the critical need for new supply. The Government's target is to reduce the province-wide electricity demand by 5% by 2007 through conservation.

On March 28, 2005, the Board issued its Order in the matter of Greater Sudbury Hydro Inc's application thereby granting approval of the Conservation and Demand Management Plan (Board file RP-2004-0203/EB-2004-0471) as submitted January 13, 2005.

This final annual report is prepared in accordance with the above Order and the Board's requirements as stated in its letter dated, February 2nd 2009.

Evaluation of CDM Plan

Refer to Board ordered Appendix A, C and D for a complete evaluation of the plan showing cumulative totals for the entire life of the third tranche CDM period.

Discussion of the Programs

Smart Meter Pilot

Greater Sudbury Hydro selected Tantalus as a smart metering technology for the purposes of the pilot. In 2007, Greater Sudbury Hydro received much of the communications equipment (network server, controller, transceivers and antenna). Delivery of the electricity and water meters took place late January 2008, with full deployment of the smart meters completed May 2008. Presently, Greater Sudbury Hydro is in the process of testing and studying the functionality of the (AMI) technology and expects to complete its study by the end of 2009.

This pilot encompassed a wireless (RF) technology with 450 electricity meters and 50 water meters to be installed sporadically throughout the City of Sudbury including some of the suburbs such as Capreol, Coniston and Chelmsford.

The purpose of the pilot was as follows:

1. Test the functionality of wireless technology in northern climate and rugged, rocky terrain.
2. Test the capability of reaching inside meters. Greater Sudbury Hydro has over 7,000 inside meters.
3. Test the capability of reading water meters. Greater Sudbury Hydro bills water on behalf of the municipality of Greater Sudbury.
4. Gain a better understanding of the technical issues in preparation of full scale deployment of smart meters.
5. Initiate customer education forums associated with smart meters and CDM.
6. Assess consumption behaviour patterns in conjunction with Time of Use rates and real time consumption data.
7. Test and evaluate operational efficiencies offered through outage management.
8. Gain a better understanding of the impact on the LDC's business process as it relates to each department within the organization.



Community Awareness

There were two programs entitled Destination Conservation and Conservation Message Centre, which were combined as one. The original intent of Destination Conservation was to concentrate on the educational curriculum at an elementary level (specifically 5th grade). Greater Sudbury Hydro identified opportunities to expand our footprint and maximize our reach by teaching all levels - elementary, secondary, and post-secondary. The original intent of the Conservation Message Centre was to purchase a Video Tran sign, install it in a high profile location as a display/message centre for conservation messages. We researched signage having energy efficient technology only to find the cost was financially prohibitive. That aside, Greater Sudbury Hydro stands by its belief that education is of the utmost importance and therefore, combined the funding of these two programs to run an array of education programs that attracted community support.

The benefits of the community awareness programs have fostered the development of a conservation culture in our community. The programs offered were successful in attracting community participation. People have begun making the choice; and, choice is what pushes us to make the difference.

1. Waste Not Watt Not

Together with a local high school, Greater Sudbury Hydro implemented the Waste Not Watt Not program. The benefits of this program were twofold. This community action plan promoted conservation while giving money back to the community. Highlights of the program as follows:

- Greater Sudbury Hydro provided Lockerby Composite Secondary School with 1000 CFL bulbs for distribution throughout the City.
- The students went door to door and spoke with the occupant about energy conservation, handed them a pamphlet containing energy saving tips, and requested they exchange an incandescent bulb for an energy efficient CFL.
- The 1000 incandescent bulbs collected were painted and made into Christmas tree ornaments.
- These ornaments were displayed at the three community shopping malls and sold for \$3.00 each.



- The proceeds were donated to a local charity.
- The Blue Door Café, Sudbury's Food Bank, received a cheque in the amount of \$3,000 which was enough money to provide a Christmas dinner for more than 400 needy people.

This program received overwhelming response. Additionally, we received a number of requests from other high schools and organizations who wanted to participate. Unfortunately, Greater Sudbury Hydro did not have available funding to provide CFLs to others.

2. Kill-A-Watt Monitor

This program ran throughout 2006 and 2007. Greater Sudbury Hydro purchased 50 Kill-A-Watt monitors for loan to customers. The monitor measures watts, voltage and kilowatts of an appliance(s). Use of the monitor was relatively easy – the monitor is plugged into an electrical outlet and then the appliance plugs into the monitor. The monitor begins to tabulate the energy usage. This enabled the customer to know how much each appliance contributes to their electricity bill each month.

This program took a hands-on approach. Greater Sudbury Hydro worked exclusively with each customer, providing them with support and advice going forward.

3. Youth Program

Greater Sudbury Hydro worked with teachers at the elementary school level aiding them in the delivery of an energy conservation and demand management course. As an educational tool, Greater Sudbury Hydro provided a work booklet for each student. These booklets speak to the history, the present and the future of electricity giving the student(s) a broad understanding of electricity and its usage.

4. Kinsmen Home Sweepstakes

For two years, Greater Sudbury Hydro provided funding to Sudbury Kinsmen Home Sweepstakes so that the house would be completely serviced with energy efficient lighting and appliances. As such, this was Sudbury's first house to be certified Energy Star for New Homes. This home showcased well and served as an educational mechanism and learning centre for both energy conservation and demand management.

In 2007, Greater Sudbury Hydro provided additional funding to ensure that lighting and appliances were energy efficient. The Sweepstakes home is an annual event that attracts more than 22,000 adults. The norm is to have the grand opening in mid August from which time the home is open to the public seven days a week until about mid November. The energy efficient home was high profile and reached an audience of about 180,000.

5. Energy Audit / Analysis

Greater Sudbury Hydro processed many individual requests some of which included net metering and energy audit / analysis. It was important that we worked with these customers to conduct analysis and deliver energy savings advice and/or guidance.

Load Control Initiative

Greater Sudbury Hydro's largest substations are equipped with voltage regulators; but, when the market opened in May 2002, were these regulators were no longer required and thus taken out of commission. Prior to this, Greater Sudbury Hydro had the ability to reduce peak demand by 1.5 to 2 MW with no disruption to the customer. This program was established to bring these units back on line and set the practice in place once again. However, the program did not meet the specifications of the IESO Emergency Demand Reduction Response; and, it was deemed ineligible to qualify under the 250 MW DR Program, as stated in a response dated May 15, 2006 from the Ontario Power Authority. As a result, we did not proceed.

Distribution System Optimization

The distribution system optimization program used a software program called Milsoft using mathematical modeling to identify areas of concern in order that the necessary changes could be made to improve our distribution system. The model of our distribution system was completed in 2007 and the transformer loading has been allocated. The program results are as follows:

- Feeder optimization at the 44kV level was completed - the result of which no significant savings were realized. This was positive because it demonstrates that our 44kV system is operating optimally.

- A study of load allocations on the 4kV and 12kV feeders was also undertaken. With this study, larger reductions in the overall system kW losses were optimized.

Addition benefits from the modeling process included:

- A design tool for Engineering to plan and study system upgrades, determine payback on conductor upgrading projects, etc.
- An operating tool for the System Operators to practice and to try out "what if" switching scenarios, to perform contingency analysis, etc.
- A design tool for Protection and Control to determine available short circuit levels anywhere on our distribution systems, to do fuse and relay co-ordination studies, etc.

Landfill Gas Generation Plant

In October 2005, Greater Sudbury Hydro invited tenders for the construction and maintenance of a Landfill Gas Generation Plant through an RFP process. The contract was awarded to Toromont Energy for the installation and operation of a 1.6MW Landfill Gas Generator. In September 2007 Greater Sudbury Utilities launched the first landfill gas plant in Northern Ontario. The benefits of this project were fourfold:

- Produces enough electricity to power approximately 1200 homes;
- Generation of electricity from waste offsets power otherwise generated from fossil fuelled power plants;
- A reduction in direct and indirect greenhouse gas emissions and
- Controlled generation output availability during peak demand periods.

Greater Sudbury Utilities has a 20 year agreement with Toromont Energy for the operations and maintenance of the plant. This matches the Standard Offer Agreement with the Province for the sale of electricity and the agreement with the City of Greater Sudbury for the purchase of the methane gas.

In December 2007 we experienced difficulty with the gas collection system, causing the obstruction of gas and consequently the generator to shut down. After a much concerted effort, the cause of the problem was determined. Unfortunately, it wasn't until late January 2008 that the discovery was made and

resolved. A large boulder heaved and crushed a part of the collection pipe located in the south end of the field.

Thermal Storage Heating

Utilities of the north experience a much higher winter peak than summer peak – the complete opposite of what is experienced by utilities located in southern Ontario. Specific to Sudbury, the summer peak is about 140 MW in comparison to the winter peak of about 180 MW, with an all time winter high of 203 MW. Diverting and/or shifting electrical usage to off peak periods has a long term potential that will ultimately help transmission assets remain in service.

Electric Thermal Storage Heating (ETS) is off-peak electric heating that offers significant advantages over conventional heating. ETS off-peak heating offered in conjunction with the OEB time of use (TOU) pricing is a win/win combination for the province and the customer. In Sudbury there remain areas in which electric heat is the only available means. Greater Sudbury Hydro has a large customer base that fit this category. To date there are 14 residential customers with ETS, a smart meter, and being billed time of use rates.

ETS technology stores low cost electricity in the form of heat for use in heating 24 hours a day. ETS equipment utilizes a storage medium to store heat during off-peak hours, as defined in the OEB Regulated Price Plan, and releasing it consistently throughout the day during the mid-peak and on-peak hours. In addition thereto, ETS also has the ability to control electric water heaters off-peak.

The benefits of the project were significant in terms of: (i) reducing energy demand at critical peak periods when Ontario's electricity system is most strained; and, (ii) providing the customer with considerable savings on their heating bill.

A summary of potential savings from an ETS Furnace and Room Heater can be seen in the two tables shown below.



Table 1. ETS Furnace (Shifts 6.5 kW of Demand from Peak to Off Peak)

	kWh as per Load Profile	% of Total Load Profile		Rate	Total
kWh "On" Peak	1038.182264	0.072723391		0.087	90.32186
KWh "Mid" Peak	976.6396588	0.068412408		0.07	68.36478
KWh "Off" Peak	12260.94608	0.858864201		0.03	367.8284
	14275.768	1			526.515

Days	kWh	Blocks	Rate	Total
63	14275.768	2100	0.05	105
		12175.768	0.059	718.3703

				<u>\$823.37</u>
Customer Savings for Bill Period Dec 3 to Feb 4/08:				<u>\$296.86</u>

			% Savings on Commodity:	36.05%
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Table 2. ETS Room Heater (Shifts 2.5 kW of Demand from Peak to Off Peak)

	kWh as per Load Profile	% of Total Load Profile		Rate	Total
kWh "On" Peak	438.809919	0.075807926		0.087	38.17646
KWh "Mid" Peak	897.0719579	0.154976361		0.07	62.79504
KWh "Off" Peak	4452.561923	0.769215713		0.03	133.5769
	5788.4438	1			234.5484

Days	kWh	Blocks	Rate	Total
63	5788.4438	2100	0.05	105
		3688.4438	0.059	217.6182

				<u>\$322.62</u>
Customer Savings for Period Dec 3 - Feb 4/08:				<u>\$88.07</u>

			% Savings on Commodity:	27.30%
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The above profiles are actual consumption and billing data collected from two of our ETS customers. These profiles clearly demonstrate how the ETS technology can significantly reduce electricity usage during Ontario's peak periods, when Ontario's electricity system is most strained, by shifting usage to periods when demand is low and Ontario has plenty of capacity.

Collectively the 14 residential customers are able to shift 59 kW of demand from peak to off-peak.

Lessons Learned

The third tranche CDM program period proved to be very successful Greater Sudbury Hydro. Throughout the three year period, we worked diligently to deliver conservation and demand management messages, not only for the purpose of addressing the worldwide issue of global warming; but, on a more individual basis, to ready our customers for what the future will deliver.

The lessons learned have been many, which will help guide us through the next period of CDM program delivery. These lessons include:

- Working with various local businesses to run a variety of campaigns of which many that included brochures. The most effective and economic method of delivering brochures was through an insert in the customer's electricity bill. However, one of the biggest challenges faced was timing. GSH invoices on bi-monthly basis and, therefore, it takes two months to run through the complete billing cycle and reach all our customers. Going forward, longer lead-time will be required for program marketing through bill inserts.
- A number of the community-based programs received overwhelming support. We believe these programs were key to our success. For example:
 - In 2007, we launched Northern Ontario's first landfill gas generation plant. This 1.6MW reciprocating fuel generator uses methane gas collected from garbage at the Sudbury Landfill to produce electricity.
 - In 2007 we ran the "Waste Not Watt Not" program. Together with a local high school we developed a CFL exchange program turning bulbs into Christmas ornaments. The ornaments were then sold to raise money for a local charity.
- There are a variety of government incentives available to both residential and small commercial customers wishing to undertake energy efficient retrofits. However, these funding resources are not easily accessed. Although we have referred many to the appropriate website(s), we have learned that customers become frustrated with the whole process; and, rather than seek and find, they tend to give up the search and forego the energy efficient retrofit. Going forward Greater Sudbury would endeavor to have resources available for customers to help guide them through the funding process.

- Messaging is a key educator. We realized that we must be consistent with the delivery of messages as this is the most effective method of understanding the importance of conservation.
- The large component of the smart meter pilot was public education. Public education is key to building a culture of conservation. Greater Sudbury Hydro recognizes the importance of hosting public information sessions and will continue to do so until all meters have been fully deployed.

Conclusions

With the exception of the Smart Meter Pilot, Greater Sudbury Hydro has exhausted all of its third tranche resources. We continue to promote conservation through the OPA programs and now the Board approved CDM funding for the period of 2009 to 2011. Greater Sudbury Hydro recognizes the importance of sustaining CDM and the value of having it sourced through the community LDC.

We are proud of our accomplishments having saved more than 10.5 MWh and 864 kW over the three-year period. Our greatest achievements include:

- The Sudbury Landfill Gas Generation Plant, the first of its kind in Northern Ontario. This 1.6MW generator now runs at 100% capacity - generating enough electricity to power approximately 1,200 homes. We plan to have a second generator installed by 2011.
- The ETS program continues to provide evidence to support a great demand management technology enabling customers to achieve an off-peak electricity usage ranging from about 80% to 90%.
- The smart meter pilot has been launched and continues to be. Our findings will be used to (i) gain knowledge in preparation of a full-scale deployment of smart meters; and, (ii) educate the public.
- The Kill-A-Watt monitor program serves as great benefit to our customers and will continue to provide this resource to our customers going forward.



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Appendix A – Evaluation of the CDM Plan

	Total for 2008	Residential	Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	Smart Meters	Other #1
Net TRC value (\$):	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefit to cost ratio:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Number of participants or units delivered:										
Lifecycle (kWh) Savings:	0	0	0	0	0	0	0	0	0	0
Report Year Total kWh saved (kWh):	0	0	0	0	0	0	0	0	0	0
Total peak demand saved (kW):	0	0	0	0	0	0	0	0	0	0
Total kWh saved as a percentage of total kWh delivered (%):										
Peak kW saved as a percentage of LDC peak kW/load (%):										
¹ Report Year Gross C&DM expenditures (\$):	\$ 55,464	\$ 11,842	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43,622	\$ -
² Expenditures per kWh saved (\$/kWh):	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
³ Expenditures per kW saved (\$/kW):	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Utility discount rate (%):	
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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 totals from Low Income programs that fall under both commercial and residential.



Appendix C – Program and Portfolio Totals

Report Year: 2008

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 (\$)
Community Awareness				0.00				11,842
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	11,842

Residential Indirect Costs not attributable to any specific program

Total Residential TRC Costs	\$	\$	\$	0.00				
**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	0

Commercial Indirect Costs not attributable to any specific program

Total TRC Costs	\$	\$	\$	0.00				
**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.

Name of Program	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	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Insitutional Indirect Costs not attributable to any specific program</i>								
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.

Name of Program	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	\$ -
<i>Industrial Indirect Costs not attributable to any specific program</i>								
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.

Name of Program	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 - Agricultural				0.00	0	0	0	0
<i>Agricultural Indirect Costs not attributable to any specific program</i>								
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.

Name of Program	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 - LDC System				0.00	0	0	0	0
<i>LDC System Indirect Costs not attributable to any specific program</i>								
Total TRC Costs								
**Totals TRC - LDC System				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 (\$) 43,622



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.

CDM Overall Support	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 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				0.00	0	0	0	0
Other #1 Indirect Costs not attributable to any specific program								
Total TRC Costs								
**Totals TRC - Other #1				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.

CDM Overall Support	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 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	0
Other #2 Indirect Costs not attributable to any specific program								
Total TRC Costs								
**Totals TRC - Other #2				0.00				

LDC's CDM PORTFOLIO TOTALS

TOTALS FOR ALL APPENDIX B	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 (\$)
Any other Indirect Costs not attributable to any specific program				0.00				
TOTAL ALL LDC COSTS								
**LDC PORTFOLIO TRC				0.00				55,464

* 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 D – Total Life Evaluation of the Plan

	Cumulative Totals Life-to-date	Residential	Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	Smart Meters	Other #1	Other #2
Net TRC value (\$)	\$ 3,348,848	\$ 944,797	\$ -	\$ -	\$ 2,301,805	\$ -	\$ -	\$ 102,246	\$ -	\$ -	\$ -
Benefit to cost ratio:	1.91	3.26	0.00	0.00	1.70	0.00	0.00	#DIV/0!	0.00	0.00	0.00
Number of participants or units delivered:	54,688	53,918	-	-	769	-	-	1	-	-	-
Lifecycle (kWh) Savings	148,223,261	24,143,332	-	-	122,766,000	-	-	1,313,929	-	-	-
Total kWh saved (kWh)	10,646,808	4,254,314	-	-	6,138,300	-	-	254,193	-	-	-
Total peak demand saved (kW)	864	111.28	-	-	700.00	-	-	53.06	-	-	-
Total kWh saved as a percentage of total kWh delivered (%)	0.40%	0.16%	-	-	0.23%	-	-	0.00%	-	-	-
Peak kW saved as a percentage of LDC peak kW load (%)	0.16%	0.02%	-	-	0.13%	-	-	0.00%	-	-	-
Gross C&DM expenditures (\$)	\$ 1,110,960	\$ 279,136	\$ -	\$ -	\$ 477,433	\$ -	\$ -	\$ 88,003	\$ 242,821	\$ 23,557	\$ -
Expenditures per kWh saved (\$/kWh)	\$ 0.10	\$ 0.07	\$ -	\$ -	\$ 0.08	\$ -	\$ -	\$ 0.35	\$ -	\$ -	\$ -
Expenditures per kW saved (\$/kW)	\$ 1,285	\$ 2,508.41	\$ -	\$ -	\$ 682.05	\$ -	\$ -	\$ 1,658.56	\$ -	\$ -	\$ -
Utility discount rate (%)											
		2005	2006	2007	Total						
		4.63%	8.125%	8.125%	8.125%						
		Total kWh Delivered	897,742,616	884,496,689	900,265,684	2,682,505,189					
		System Peak	178,048	174,545	182,354	534,947					

¹ Expenditures are reported on cumulative 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. Actual expenditures for the total third tranche period need to be reported.
⁵ Includes total for the reporting year, plus prior years, if any (for example, 2008 CDM Annual report for third tranche will include 2007, 2006, 2005 and 2004 numbers, if any).
⁶ Includes totals from Low Income programs that fall under both commercial and residential.