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May 14, 2009

***Delivered by Courier***

Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street  
Suite 2700  
Toronto, ON M4P 1E4

Attention: Ms. Kirsten Walli  
Board Secretary

**Re: Haldimand County Hydro Inc. (Licence # ED-2002-0539)  
2008 Annual Reporting of Conservation and Demand Management  
Initiatives – Third Tranche Funding (RP-2004-0203)**

Further to orders issued by the Ontario Energy Board (the "Board") in proceeding RP-2004-0203 approving electricity distributor conservation and demand management ("CDM") plans, and in accordance with the Board's letter dated February 2, 2009 in this regard, the Board requires that each distributor file an annual report regarding its CDM initiatives, including a cost benefit analysis – regardless of the level of CDM activity undertaken in 2008 through the third tranche funding initiative.

Accordingly, please now find enclosed three (3) hard copies which include the following:

- 2008 Annual Report – Total Life Evaluation of Third Tranche CDM Funding, dated April 28, 2009;
- Appendix A – Evaluation of the CDM Plan for each year – 2005, 2006, and 2007; and
- Appendix D – Total Life Evaluation of the CDM Plan.

Also enclosed are electronic copies included on a disk (CD) which include:

1. "2008 Annual Report\_CDM Third Tranche  
Funding\_Haldimand\_20090514" (SINGLE PDF DOCUMENT - ALL MATERIALS) (*PDF*)
2. "2008 Annual Report\_CDM Third Tranche  
Funding\_Haldimand\_20090514" (APPENDICES A AND D, AS NOTED ABOVE) (*EXCEL*)

These electronic files have also been forwarded to your attention, by email to [Boardsec@oeb.gov.on.ca](mailto:Boardsec@oeb.gov.on.ca), today.

Yours truly,  
**HALDIMAND COUNTY HYDRO INC.**

*Original signed by J.A. Scott*

Jacqueline A. Scott  
Finance Manager

## **Total Life Evaluation of the Third Tranche CDM Plan**

Submitted By:

**Haldimand County Hydro**

**RP-2004-0203/EB-2004-0523**

May 14, 2009





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Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street  
Suite 2700  
Toronto, ON M4P 1E4

Attention: Kirsten Walli  
Board Secretary

**Total Life Evaluation of the Third Tranche CDM Plan  
RP-2004-0203/EB-2004-0523**

Dear Ms. Walli:

Haldimand County Hydro Inc. learned much from its Third Tranche CDM program experience between 2005 and 2007. While there are challenges in serving more than 20,000 customers across a rural and suburban area of 1,252 square kilometres, a regional approach to programming with our Niagara Erie Power Alliance (NEPA) partners drove economies of scale and delivered consistent messages to customers.

This approach proved successful within the Residential customer segment, returning a net TRC value of almost \$350,000 over the duration of Third Tranche CDM expenditures. Expenditures on distribution system improvements will return more than 3 million kWh in energy savings over its lifecycle, and greater than 60,000 kWh over three years.

Overall, 2005, 2006, and 2007 CDM activities enabled the creation of a CDM foundation within our customer base. Awareness of Haldimand County Hydro as an energy efficiency partner was imprinted across all classes of customers, while important branding was executed with respect to the Conserver Joe family to engage both current and future electricity customers in conservation values.

As the accompanying Appendix D - Total Life Evaluation of the CDM Plan details, Haldimand County Hydro expended \$453,969.42 on its Third Tranche CDM activities between 2005 and September, 2007. A strong Cumulative Net TRC value of \$347,873 was achieved in the



residential segment over the Third Tranche period, but this was offset by a negative Cumulative Net TRC value of -\$331,193 from distribution system improvements (voltage conversion) which have a lengthy payback period, but will save more than 3 million kWh over its lifecycle. Overall, Third Tranche CDM expenditures achieved a Cumulative Net TRC value of -\$8133 between 2005 and 2007.

### **Lessons Learned**

The success achieved between 2005 and 2007 in the residential segment was the result of several factors, including public awareness, the engagement of younger electricity users, and the community as a whole. This was particularly evident in such initiatives as the Conserver Joe website, and in seasonal LED light exchanges in conjunction with a community parade and other events. Community leaders also helped motivate a wider shift in consumer behaviour by changing seasonal light displays to LED from incandescent.

The success in the residential sector also taught us that CDM results are not dependent on expenditures. Through zero incremental cost measures such as press releases, CDM messages on bill inserts and staff awareness efforts; much was accomplished in terms of awareness and the CDM program readiness of stakeholders.

Industrial customers benefited from Third Tranche CDM programming with the conversion of Haldimand County Hydro's 22 largest customers to interval meters in 2006 and 2007. Though the near-term benefits of meter conversion in terms of net TRC is nominal or even negative, this initiative is the platform for introducing future demand response programs for customers whose demand is greater than 150 kW. It underscores the learning that there is tremendous long-term value in enabling future programming, that in turn, can spur customer investments to reduce consumption and demand.

Perhaps the most important lesson that the Third Tranche CDM program afforded to Haldimand County Hydro is that collaboration provides significant operational leverage. In co-operation with our NEPA partners, we planned and executed CDM programming. It was the basis for consistent messaging and branding over a substantive geographical area, and



## Haldimand County Hydro Total Life Evaluation of Third Tranche CDM Programs

initiated the shift to a conservation culture. This alliance is also helping member LDCs realize more efficient purchasing of CDM materials and support services.

Overall, Haldimand County Hydro views its Third Tranche CDM experience as an optimal training ground. It created a capability and readiness to bring added value to customers, while alerting the community to the potential of conservation. It also put in place the relationships with other LDCs, suppliers and stakeholders that is critical to our CDM success.

We are now applying our new expertise and relationships to implement CDM programs sponsored by the Ontario Power Authority, with the confidence that much more can be accomplished in our CDM mission.

Please call if you have any questions or wish to discuss any aspect of this submission.

Yours truly,  
HALDIMAND COUNTY HYDRO INC.

Jane Albert  
Consumer Services Manager

## 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.

	Total for 2005	Residential	5 Low Income	Commercial	>50 GS	Industrial	Agricultural	LDC System	4 Smart Meters	Total Non TRC Program Cost	Other #2
Net TRC value (\$):	\$ 149,612	\$ 149,612		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Benefit to cost ratio:		7.26		0.00	0.00	0.00	0.00	0.00		0.00	0.00
Number of participants or units delivered:	4,369	4,356			13						
Lifecycle (kWh) Savings:	2,786,842	2,786,842		0	0	0	0	0		0	0
Report Year Total kWh saved (kWh):	243,055	243,055		0	0	0	0	0		0	0
Total peak demand saved (kW):	88	88		0	0	0	0	0		0	0
Total kWh saved as a percentage of total kWh delivered (%):	0.0070	0.0070									
Peak kW saved as a percentage of LDC peak kW load (%):	0.0010	0.0010									
<sup>1</sup> Report Year Gross C&DM expenditures (\$):	163,311	\$ 26,677			\$ 4,986			\$ 103,834		\$ 27,815	
<sup>2</sup> Expenditures per kWh saved (\$/kWh):	\$ 0.06	\$ 0.01		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<sup>3</sup> Expenditures per kW saved (\$/kW):	\$ 1,855.81	\$ 303.15		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Utility discount rate (%):	8.56	Total kWh delivered 398,288,338		Indirect Cost	\$ -						
		Total kW delivered		88,622							

<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 totals from Low Income programs that fall under both commercial and residential.

## 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.

	Total for 2006	Residential	<sup>5</sup> Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	-\$ 272,768	\$ 65,683	\$	\$ (4,320)				\$ (331,193)			
<i>Benefit to cost ratio:</i>	0.36	7.95						0.19			
<i>Number of participants or units delivered:</i>	2,001	2,000						1			
<i>Lifecycle (kWh) Savings:</i>	3,431,582	1,918,197						1,513,385			
<i>Report Year Total kWh saved (kWh):</i>	490,715	427,657						63,058			
<i>Total peak demand saved (kW):</i>	51	37						14			
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.130%	0.113%						0.400%			
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	0.061%	0.044%						0.017%			
<sup>1</sup> <i>Report Year Gross C&amp;DM expenditures (\$):</i>	231,201	\$ 15,650	\$	\$ 4,320				\$ 190,751	\$ 17,542		
<sup>2</sup> <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.07	\$ 0.01	\$	\$ -	\$ -	\$ -	\$ -	\$ 0.13		\$ -	\$ -
<sup>3</sup> <i>Expenditures per kW saved (\$/kW):</i>	\$ 4,533	\$ 422.97	\$	\$ -	\$ -	\$ -	\$ -	\$ 13,625.07		\$ -	\$ -

<i>Utility discount rate (%):</i>	7.52	Total kWh delivered	378,457,522	Indirect Cost:	\$ 2,938
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Total kW delivered 84,091

<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 totals from Low Income programs that fall under both commercial and residential.



## 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.

	Total for 2007	Residential	<sup>5</sup> Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
Net TRC value (\$):	\$ 132,578	\$ 132,578	\$					\$ -			
Benefit to cost ratio:	14.78	14.78						0.19			
Number of participants or units delivered:	1,001	1,000						1			
Lifecycle (kWh) Savings:	2,411,109	897,724						1,513,385			
Report Year Total kWh saved (kWh):	143,929	143,929									
Total peak demand saved (kW):	33	33									
Total kWh saved as a percentage of total kWh delivered (%):	0.038%	0.038%						0.000%			
Peak kW saved as a percentage of LDC peak kW load (%):	0.039%	0.039%						0.000%			
<sup>1</sup> Report Year Gross C&DM expenditures (\$):	\$ 59,457	\$ 14,521	\$	\$ 4,588				\$ 3,986	\$ 18,808		
<sup>2</sup> Expenditures per kWh saved (\$/kWh):	\$ 0.02	\$ 0.02	\$	\$ -	\$ -	\$ -	\$ -	\$ 0		\$ -	\$ -
<sup>3</sup> Expenditures per kW saved (\$/kW):	\$ 1,802	\$ 440	\$	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -

Utility discount rate (%):	7.52	Total kWh delivered	378,760,526	Indirect Cost	\$ 17,555
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Total kW delivered 84,615

<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 totals from Low Income programs that fall under both commercial and residential.

## Appendix D - Total Life Evaluation of the CDM Plan

Table is to be completed manually by totalling the information from each year of activity

	<sup>5</sup> Cumulative Totals Life-to-date	Residential	<sup>6</sup> Low Income	Commercial	>50 GS	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Total Non TRC Program Cost	Other
<i>Net TRC value (\$):</i>	-\$ 8,133	\$ 347,873	\$ -	-\$ 4,320	\$ -	\$ -	\$ -	-\$ 331,193	\$ -	\$ -	
<i>Benefit to cost ratio:</i>	1.04	9.10	-	-	-	-	-	0.19	-	-	-
<i>Number of participants or units delivered:</i>	7,371	7,356	-	-	13	-	-	2	-	-	-
<i>Lifecycle (kWh) Savings:</i>	8,629,533	5,602,763	-	-	-	-	-	3,026,770	-	-	-
<i>Total kWh saved (kWh):</i>	877,699	814,641	-	-	-	-	-	63,058	-	0.00	-
<i>Total peak demand saved (kW):</i>	172	158	-	-	-	-	-	14	-	-	-
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.076%	0.071%	0.000%	0.000%	0.000%	0.000%	0.000%	0.005%	0.000%	0.000%	0.000%
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	0.194%	0.178%	0.000%	0.000%	0.000%	0.000%	0.000%	0.016%	0.000%	0.000%	0.000%
<sup>1</sup> Gross C&DM expenditures (\$):	\$ 453,969.42	\$ 56,848.10	\$ -	\$ 8,908.00	\$ 4,985.70	\$ -	\$ -	\$ 298,570.68	\$ 36,350.00	27,815	\$ -
<sup>2</sup> Expenditures per kWh saved (\$/kWh):	\$ 0.52	\$ 0.01	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<sup>3</sup> Expenditures per kW saved (\$/kW):	\$ 2,639.36	\$ 359.80	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

<i>Utility discount rate (%):</i>	Total kWh delivered	1,155,506,386	Indirect Cost	\$ 20,493
	Total kW delivered	88,622		

<sup>1</sup> Expenditures are reported on cumulative 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. Actual expenditures for the total third tranche period need to be reported.

<sup>5</sup> 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).

<sup>6</sup> Includes totals from Low Income programs that fall under both commercial and residential.