HYDRO ONE REMOTE COMMUNITIES INC.

Conservation and Demand Management Plan

Annual Report to December 31, 2005

RP-2005-0020/EB-2005-0511

March 31, 2006

Introduction

Hydro One Remote Communities Inc. (Remotes) serves off-grid communities in Ontario's far north. Remotes generates electricity for sale within these communities, primarily from diesel fuel. As Remotes' costs are unique, the avoided costs used in this report were filed in RP-2005-0020/EB-2005-0511 and include a 2.5% inflation factor. (The nominal TRC value of $135,110.96 in Appendix A if restated with the 2.5% inflation factor is $158,652.46.)

Remotes is operated on a break-even basis and does not earn a return on equity. Remotes believes that energy efficiency and conservation programs have the potential to reduce short and long term operating costs, with accompanying environmental and social benefits.

The primary intent of Remotes' DSM initiative is to cost-effectively develop and implement a range of residential customer and supplier programs that will deliver energy reductions and reduce expenditures on diesel fuel.

The DSM initiative has three main programs:

1) Residential Energy Conservation (Pilot Project)

This program will involve pilot projects in up to three communities to investigate energy efficiency measures for available and to acquire/sponsor customer rebates. Residential customers. Activities supported through this initiative will include installing insulation on water pipes, insulating water heaters and lighting. Costs for transportation and project coordination are included in the program costs.

2) Energy Conservation Education and Awareness Program

This program is designed to educate customers about conservation. The program includes a school program, community workshops on conservation initiatives; translation of conservation information; and community consultations related to conservation, along with education around building design as the Ontario Building Code does not apply on reserve.

3) Product Supplier Program

Transportation costs make goods far more expensive in Remote Communities than road connected communities. Additionally, many customers within Remotes' service territory are economically disadvantaged. This program would

attempt to work with product suppliers, Northern Stores and Band Councils and with NRCan to make Energy Star Labeled and other energy efficient products

Lessons Learned/Conclusions

Remotes began its program during 2005. Lessons learned to date include the importance of consultation and community engagement. Remotes anticipates that as the program is more fully developed, learning will continue.

A. **Name of the Program:** Hydro One Remote Communities

Introduction

Remotes serves off-grid communities in the far north. Remotes generates electricity for sale within these communities, primarily from die

Appendix A - Evaluation of the CDM Plan

	Total	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	Other 1	Other 2	Other 3	Other 4
Net TRC value ($):	*$ 135,110.96*	*$ 135,110.96*									
Benefit to cost ratio:	*3.4*	*3.4*									
Number of participants or units delivered:	*972*	972									
Total KWh to be saved over the lifecycle of the plan (kWh):	*526,338.00*	*526,338.00*									
Total in year kWh saved (kWh):	*17,544.60*	*17,544.60*									
Total peak demand saved (kW):	*n/a*	*n/a*									
Total kWh saved as a percentage of total kWh delivered (%):	*0.04%*	*0.04%*									
Peak kW saved as a percentage of LDC peak kW load (%):	*7.3872*	*7.3872*									
Gross in year C&DM expenditures ($):	*$ 77,992.00*	*$ 77,992.00*									
Expenditures per KWh saved ($/kWh):*											
*Expenditures per KW saved ($/kW)**:*											

Utility discount rate (%):	5.5

*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:** Residential Energy Conservation (Pilot Project)

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

Pilot projects in up to 3 communities to investigate energy efficiency measures. The pilot projects involve hiring and training local resour

205271.82

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delive	972		
Measure life (years):	30		

B. **TRC Results:**

TRC Benefits ($):	*$*	*135,110.96*
TRC Costs ($):	*$*	*46,599.00*
Utility program cost (less incentives):	$	46,599.00
Participant cost:	$	-
Total TRC costs:	$	46,599.00
Net TRC (in year CDN $):	$	46,599.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$	2.90

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

Conservation Programs:

Demand savings (kW):	*Summer*		
	Winter	7.3872	
	lifecycle	*in year*	
Energy saved (kWh):	*526338*	17544.6	
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 begining of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

Peak load savings (kW):		
	lifecycle	*in year*
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):	

D. **Program Costs*:**

Utility direct costs ($):	*Incremental capital:*	
	Incremental O&M:	$ 46,599.00
	Incentive:	
	Total:	
Utility indirect costs ($):	*Incremental capital:*	
	Incremental O&M:	
	Total:	
Participant costs ($):	*Incremental equipment:*	0
	Incremental O&M:	*0*
	Total:	0

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:** Energy Conservation Education and Awareness Program

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

Educate customers about conservation, keeping oral traditions in mind. This program includes a school based awareness program, tran

17544.6

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 ($):			
TRC Costs ($):		*$*	*31,393.00*
	Utility program cost (less incentives):	$	31,393.00
	Participant cost:	$	-
	Total TRC costs:	$	31,393.00
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 begining of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

	lifecycle	in year
Peak load savings (kW):		
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):	

D. **Program Costs*:**

Utility direct costs ($):	*Incremental capital:*	
	Incremental O&M:	$ 31,393.00
	Incentive:	
	Total:	
Utility indirect costs ($):	*Incremental capital:*	
	Incremental O&M:	
	Total:	
Participant costs ($):	*Incremental equipment:*	0
	Incremental O&M:	*0*
	Total:	0

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:** Product Supplier Program

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

Make energy efficient products available in the communities. There were no expenditures related to this program in 2005.

17544.6

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:

		lifecycle	in year
Demand savings (kW):	*Summer*		
	Winter		
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 begining of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

Peak load savings (kW):		
	lifecycle	*in year*
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):	

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:*	0
	Incremental O&M:	*0*
	Total:	0

E. Comments:

*Please refer to the TRC Guide for the treatment of equipment cost in the TRC Test.