SIOUX LOOKOUT HYDRO INC.

RP-2004-0203/EB-2004-0518

CONSERVATION AND DEMAND ANNUAL REPORT

2005

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 ans also sxchange 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 only initiative implemented and completed in 2005 was the Line Loss Reduction Program involving the upgrade to system voltages. The upgrades for transformers will be ongoing.

Evaluation of the CDM Plan

Since the only program implemented in 2005 was the Line Loss Reduction Program Appendix A is not applicable. The Total Resource Cost Guide indicates in section 1.2.2 that "while the Board recognizes that losses are a real part of the electrical system, at this time, losses on the distribution system should not be included in calculating the savings associated with a conservation or demand management measure."

Discussion of the Programs

Please see Appendix B for the discussion of the Line Loss Reduction Program.

Lessons Learned

The lessons learned are not applicable to the program implemented in 2005 since customer participation was not required.

Conclusion

Sioux Lookout Hydro completed the upgrade on the system voltage and conductor upgrade in May 2005. After the statistics were completed for 2005 the line loss on our system showed a decrease from 7.1% in 2004 to 5.9% in 2005. This decrease can be attributed to the upgrades performed as well as to several billing and metering errors discovered in 2005.

Signed this 28th day of March 2006 by:

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Gord Maki, President/CEO
Sioux Lookout Hydro Inc.

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 ($):											
Benefit to cost ratio:											
Number of participants or units delivered:											
Total KWh to be saved over the lifecycle of the plan (kWh):											
Total in year kWh saved (kWh):											
Total peak demand saved (kW):											
Total kWh saved as a percentage of total kWh delivered (%):											
Peak kW saved as a percentage of LDC peak kW load (%):											
Gross in year C&DM expenditures ($):											
Expenditures per KWh saved ($/kWh):*											
*Expenditures per KW saved ($/kW)**:*											

Utility discount rate (%):	

*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:** Line Loss Reduction Program

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

The intent of this program is to reduce line losses on our distribution system. This will include an upgrade on the system voltage from 7200 volts to 14000 volts for a distance of 14km. A conductor upgrade on our local saw mill feeder. The conductor would be changed from #2 special to 336 Al. We will also be implementing a policy to purchase only high efficient transformers. The approximate savings would be 459MWH/yr.

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 ($):		*n/a*
TRC Costs ($):		
	Utility program cost (less incentives):	
	Participant cost:	
	Total TRC costs:	
Net TRC (in year CDN $):		n/a
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		n/a

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):		459000

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:*	$ 26,068.00
	Incremental O&M:	
	Incentive:	
	Total:	$ 26,068.00
Utility indirect costs ($):	*Incremental capital:*	0
	Incremental O&M:	0
	Total:	0
Participant costs ($):	*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.