

TERRACE BAY SUPERIOR WIRES INC. – RP-2004-0203\EB-2004-0547

Conservation and Demand Annual Report

1. Introduction

In February of 2005, Terrace Bay Superior Wires Inc.(TBSW)'s Conservation and Demand Management (CDM) Plan was approved by the Ontario Energy Board. The Plan budget is approximately \$46,334, which is consistent with the third installment of MARR. In formulating this Plan, TBSW's objectives were to foster a conservation culture in its service area, encourage the use of energy-wise products and appliances and provide practical solutions which would, once completed, benefit all customer classes, while utilizing existing staffing resources, thereby minimizing plan administration, consulting and delivery costs.

2. Evaluation of the CDM Plan (Appendix A is attached)

Implementation in 2005 included four initiatives under our Conservation Program, including a Smart Bulb Give-Away, New Appliance Rebate Incentives, Water Heater Tank Blanket Promotion, and a Holiday Light Set Exchange. Of all the measures implemented, our analysis shows that the Bulbs, Holiday Lights and Water Heater Blankets are expected to generate the highest energy savings over their lifecycle. All initiatives were well received by the community and we were thankful for the interest and opportunity to discuss conservation on an individual basis with concerned customers.

3. Discussion of Program (Appendix B is attached)

The only Program of our CDM Plan implemented in 2005 was Conservation, of which, four promotions and incentives were conducted.

Conservation & Demand:

- 1) **Smart Bulb Give-Away:** This promotion involved handouts of CFL Low Energy Bulbs to 300 residential customers, and delivery of 150 bulbs to 3 general customers. This initiative targeted 47% of our customers and was 100% successful.
- 2) **Holiday Light Exchange:** This involved bringing in an old set of holiday lights and receiving an LED Holiday Set coupon voucher, which was redeemed at a local hardware store. 6% of Residential customers brought in their old light sets and 96% of available coupons were redeemed
- 3) **Water Heater Blanket Promotion:** Coupons were made available for residential customers to purchase a tank wrap to reduce heat loss of their electric water heaters. This promotion focused on 6% of our Residential customers, with 26% redemption rate. This campaign was not as popular as expected.
- 4) **Appliance Rebate Incentive:** This initiative involved \$50 rebate incentives to customers who purchased new higher efficient or alternative fuel appliances. Target was 2% of Residential customers and 45% of available rebates were claimed. In

calculating TRC costs and benefits for 4 of the 18 appliances, assumptions and measures from the TRC Guide for similar appliances that were comparable in years of life and annual consumption were used in the calculations.

4. Lessons Learned

Although all four Conservation initiatives were well received and considered successful, the Holiday Light Exchange was the most popular and will probably be repeated in the fall of 2006. Not only will this particular promotion effect future energy savings for the customer and the Province on the whole, but it also removed some obviously hazardous and worn light strands from circulation – thereby providing a safety bonus to the customer.

Given the economic situation in Terrace Bay with the closure of Neenah Paper, which is the community's main industry, which is expected to result in a high percentage of town residents facing future relocation out of the area, it has become apparent that replacing inefficient appliances is currently not a priority issue for residential or commercial customers.

Although some customers are also interested in alternative fuel switching for heating, many do not feel that the outlay of funds is justified in light of a pending move and the reality of decreasing real estate values. Alternative fuel options are also limited in this area. At the present time, it is difficult to ascertain if this particular initiative should be run in 2006. We may need to re-evaluate in conjunction with local economic considerations as the year progresses.

Personal customer service was greatly increased during this past year, in way of explaining energy saving tips and making recommendations to customers on a one-to-one basis. And customers have responded favorably to conservation messages by becoming more aware of, and implementing practical ways to reduce consumption in their homes and save money in their energy bills.

5. Conclusion

Overall we feel our initiatives were well received – we attempted to provide practical solutions, customized for this particular service area. We look forward to continuing our conservation and demand management efforts over the coming year, and assisting our customers to appreciate the overall benefits of conserving energy.

Respectfully Submitted by:

J. Mariette Mifflin, General Manager

Date

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 (\$):	\$ 10,123.70	\$7,175	\$2,948								
Benefit to cost ratio:	1.94							\$1.94			
Number of participants or units delivered:	578	\$428	\$150								
Total kWh to be saved over the lifecycle of the plan (kWh):	387,114	324,714	62,400								
Total in year kWh saved (kWh):	67,775	52,175	15,600								
Total peak demand saved (kW):											
Total kWh saved as a percentage of total kWh delivered (%):	0.0037	\$0.0050	\$0.0019								
Peak kW saved as a percentage of LDC peak kW load (%):											
Gross in year C&D expenditures (\$):	\$ 4,807.74							\$4,807.74			
Expenditures per kWh saved (\$/kWh)*:	0.0709							\$0.0709			
Expenditures per kW saved (\$/kW)**:											
Utility discount rate (%):	8.13										

*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:** Conservation Program

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

There were no partnerships involved in the implementation of Terrace Bay Superior Wires's Conservation Program.

Measure(s):	Measure 1	Measure 2	Measure 3	Measure 4
Base case technology:	60 W Incandescent bulb	5 W Holiday Lights	Existing Stock	Existing Stock/Std appliance
Efficient technology:	15 W CF bulb	LED Holiday Lights	Water Tank Wraps	More Efficient Appliances
Number of participants or units delivered:	450	58	53	18
Measure life (years):	4	20	6	vary between 8 - 21 yrs

B. **TRC Results:**

TRC Benefits (\$):	\$	20,872.76
TRC Costs (\$):		
Utility program cost (less incentives):	\$	3,368.06
Participant cost:	\$	7,381.00
Total TRC costs:	\$	10,749.06
Net TRC (in year CDN \$):	\$	10,123.70
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$	1.94

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

Conservation Programs:

Demand savings (kW):	Summer		
	Winter		
	<i>lifecycle</i>	<i>in year</i>	
Energy saved (kWh):	387,114	67,775	
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 beginning of year (%):		
Distribution system power factor at end of year (%):		

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
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):		
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D. Program Costs*:

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$	4,358.06
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		449.68
	Total:	\$	4,807.74
Participant costs (\$):	Incremental equipment:		
	Incremental O&M:		
	Total:		

E. Comments:

Measure 4 has been summarized for efficiency and is further explained in the report.

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