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May 22, 2012

Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
St. John's, NL
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ATTENTION: Ms. Cheryl Blundon
Director of Corporate Services & Board Secretary

Dear Ms. Blundon:

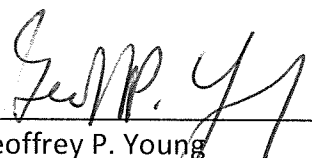
Re: 2011 Conservation and Demand Management Report

Enclosed please find the original and eight copies of Newfoundland and Labrador Hydro's 2011 Conservation and Demand Management Report.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Geoffrey P. Young
Senior Legal Counsel

GPY/jc

cc: Gerard Hayes – Newfoundland Power

**A REPORT TO
THE BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

2011 Conservation and Demand Management Report

NEWFOUNDLAND AND LABRADOR HYDRO

May 2012



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1 Introduction

This report provides an overview of Newfoundland and Labrador Hydro's (Hydro) activities undertaken in 2011 on Conservation and Demand Management (CDM). The report also provides some information on the future outlook and provides an estimate of the value of CDM from a utility perspective.

While the focus is on CDM information and programs directed at customers, Hydro also places efforts on improving the energy efficiency of its own facilities and there were further successes in that program in 2011.

This report describes the provincial approach towards the CDM initiatives, but focuses on the costs and initiatives for Hydro's portion of program implementation.

2 Provincial Context

Energy conservation initiatives were a topic of discussion during Hydro's 2006 General Rate Application (GRA) and a CDM Potential Study was completed in 2008. From that, a five-year strategic plan was completed which outlined proposed energy conservation initiatives to be implemented jointly by Newfoundland Power and Hydro.

The focus was, and is, on energy savings through the development of a culture of conservation. The activities in the Plan include rebate programs for each sector – residential, commercial and industrial – and supporting activities for awareness, education and community engagement to stimulate attitude change and behaviours. The program concepts from the Five-Year Plan and Hydro's 2010 Coupon Pilot Program are included in Appendix A - CDM Program Concepts.

Through Order No. P.U. 14 (2009), the Board of Commissioners of Public Utilities (Board) approved the definition and establishment of a Conservation Deferral Account. A definition for this deferral account was submitted to the Board on April 22, 2009 and is attached as Appendix B to this report.

The takeCHARGE brand was launched in 2008 as a joint utility effort and the first rebate programs were launched through takeCHARGE in 2009. Those same programs continue to be offered. Hydro expanded these program offerings in 2010-2011 with a coupon pilot program, designed to assess the interest from residential customers in lower cost technologies as a way to conserve electricity. This program required significant retailer partnership and coordination and grew from including ten retailers at launch to 17 participating retailers at close of the pilot. The lessons learned from the pilot program are now informing the development of lower cost technology options in the updated Five-Year Utility CDM Plan.

As well as utility-driven CDM programs, Hydro also worked with the Provincial Department of Natural Resources to deliver community based programming, targeting the coastal communities in Labrador. Phase I of the pilot was held in 2009 and the Phase II pilot occurred in 2010. These programs allowed Hydro to work with a community wide approach in isolated areas and provide education, resources and promotions of other programs and offerings to interested residential and commercial customers. The lessons learned from these programs have resulted in the development of a broader Isolated Systems Energy Efficiency Program.

Also working with the Provincial Climate Change, Energy Efficiency and Emissions Trading Secretariat (CCEET), Hydro was engaged in two research projects: a survey of other provincial jurisdictions for commercial and industrial sector CDM programs to inform policy and program development, and work to provide assessments of energy modeling methodologies for greenhouse gas (GHG) reductions and efficiency program impacts.

3 2008-2013 Five-Year Plan Activities

In 2011, Hydro and Newfoundland Power began developing a new provincial Five-Year Plan to include an expansion of programs for both residential and commercial customers. The Plan is expected to be submitted to the Board in 2012.

The utilities have made gains in CDM program design and implementation, as well as in customer and market engagement since the launch of takeCHARGE in 2009. They also recognize the complexity of the barriers and behaviours in each of their service areas. In particular there has been a significant difference in the uptake of programs between the urban and rural markets which has led to targeted marketing and promotions in rural areas to build participation and awareness.

In moving forward with the updated Five-Year Plan, the utilities are examining a wide range of joint delivery components and strategies for addressing the differences in the rural and urban markets, measurement and evaluation processes and other issues. Each utility has taken the responsibility for addressing the unique aspects of their customers. Hydro informed the Board of an expansion of programming targeting the isolated and diesel systems in 2012 through the 2012 Conservation Cost Deferral and Program Expansion Report, filed December 22, 2011.

The Energy Savers Rebate programs offered through the takeCHARGE program launched in June 2009 were offered through 2011. These programs have produced energy savings and continue to prompt consumers to consider energy efficiency in their purchases. These programs target the highest end uses for the residential and commercial markets of heating and lighting, respectively. These programs are:

- Residential Windows;
- Residential Thermostats;
- Residential Insulation; and
- Commercial Lighting.

The Industrial Energy Efficiency Program (IEEP) is offered to transmission level Industrial Customers and in 2011 the first projects were submitted for incentive support. This program provides financial support for engineering feasibility studies of efficiency projects and for project implementation costs.

In addition to these provincial rebate programs, Hydro also offered a coupon-based energy efficiency program delivered through the takeCHARGE program to Hydro customers. This pilot program was launched in 2010 and closed in April 2011. This program provided in-store coupons for eight energy efficiency products including lighting fixtures, bulbs and hot water tank wraps. It also provided mail-in rebates for Energy Star rated refrigerators and dishwashers. The program was the first retailer based coupon program offered through takeCHARGE and lessons from the pilot will influence future program expansion plans.

Working with Industrial Customers on the IEEP has provided Hydro with a stronger understanding of some of the barriers to energy efficiency with this, and related sectors. Using these lessons, Hydro proposed a similar custom approach in its portfolio expansion to reach general service customers in isolated systems. In addition, Hydro outlined a larger community based efficiency program for the isolated systems providing resources and tools for both residential and commercial customers.

Table 1 and Table 2 below describe Hydro's total CDM expenses and energy savings from 2009 to 2011 across all of Hydro's systems including the Labrador Interconnected System. This report will provide further detail and breakdown of those costs that will be recovered through the deferral account and the associated energy reductions.

Table 1: Hydro CDM Portfolio Costs (\$000)

	2009	2010	2011
Windows	44	48	140
Insulation	40	60	80
Thermostats	13	19	31
Coupon Program	0	140	135
Commercial Lighting	13	12	59
Industrial	57	221	103
Total	123	452	408

Table 2: Hydro Annual Energy Savings (MWh)

	2009	2010	2011
Windows	12	27	61
Insulation	31	84	407
Thermostats	6	25	27
Coupon Program	0	64	256
Commercial Lighting	3	10	227
Industrial	0	0	165
Total Existing	52	210	1,143

There are two components of the costs associated with the conservation and efficiency function. Direct program costs are charged to the Deferral Account, and costs associated with general energy efficiency awareness and education, strategic planning and program development are also incurred. These costs remain relatively stable regardless of the number of rebate programs currently offered in the portfolio.

These costs are outlined in Table 3 below. While these costs were in line with expectations for education and support, there was an increase in planning costs related to the planning and development of program concepts for the Isolated Systems Community Program and a Provincial Coupon Program.

Table 3: Hydro's Support Costs (\$000)

	2009	2010	2011
Education	262	106	212
Support	53	48	43
Planning	176	180	304
Total	491	334	559

4 2011 Program Highlights

takeCHARGE is a joint utility approach to provincial CDM programming that allows for economies of scale to be achieved in areas such as marketing and outreach. The technologies selected for rebate programs address large energy use opportunities and have been verified as cost effective through standard utility economic screening. In addition, a range of education efforts around general energy efficiency messaging have also been implemented to develop a culture of conservation.

The utilities continue to receive positive response to the existing programs that address a wide provincial customer base. There have, however, been opportunities identified that address different needs within each utility's own distinct customer base. For example, rural Hydro customers respond positively to community engagement efforts as demonstrated by the Coupon Program events and lighting technology exchanges held by Hydro and the Coastal Labrador Pilot Program. The Coastal Labrador Energy Efficiency Pilot Program Phase II was implemented in 2011 and was an initiative funded by the Department of Natural Resources to provide energy efficiency technologies and education to residences and businesses in four isolated diesel communities. This program was not a utility-based ratepayer program, but was instead fully funded by the Province.

The technologies selected for joint utility rebates through provincial takeCHARGE programs have been those that address high energy end uses, such as residential heating and commercial lighting. In addition, technologies that have smaller end use profiles, such as lighting and hot water conservation products have been encouraged through Hydro's Coupon Pilot Program to promote a wider range of opportunities to conserve and provide assistance to customers in gaining access and awareness of lower cost options.

During 2011, takeCHARGE promotions continued to through mass market media, as well as through increasing its presence in social media with an active Facebook page and website. Using engagement techniques such as contests to facilitate discussions on energy efficiency, customers were able to learn about ways to conserve energy and takeCHARGE programs. There was an increase in retailer partnership on joint promotions in 2011. Hydro worked with retailers to jointly promote sales on rebated technologies and connect with in-store sales. For example, Hydro worked with select retailers to develop flyers and promotional materials to promote a programmable thermostat sale and highlight the takeCHARGE rebate available for these items as well.

5 Sector Highlights

In the residential sector, there was growth in all programs. The Insulation Program had the most significant increase, with four times the uptake of the previous year. This increase was largely due to a targeted promotion in the fall that provided an increased incentive for insulation upgrades in eligible homes. This promotion was marketed through print, web and direct in-store promotions and the results demonstrate it was a customer participation success. Since that event, Hydro has been able to engage in new joint sales and promotions with retailers on other products, namely thermostats, and retailers have expressed interest in further partnership opportunities for promoting efficient products. This is a positive result of the insulation promotion as retailers are a key stakeholder in moving forward energy efficiency programs.

A coupon program was launched in the fall of 2010¹ and ended in spring 2011. This initiative brought a wider range of technologies to the attention of homeowners; increased awareness and interest in energy efficiency; and allowed for the utilities to explore a new method of customer engagement. The program had the additional benefit of further educating and engaging retailers and retail staff on energy efficiency, providing more support to customers looking to conserve. Since the inception of this program, Hydro has seen an increase in the interest of retailers in working with the company on energy efficiency education and products.

The commercial sector saw growth in 2011 as well, due primarily to an increase in the number of participating lighting distributors and the inclusion of eligible lighting systems in new commercial construction in Hydro's service area. Hydro worked with the provincial Department of Transportation and Works to ensure new schools installed eligible efficient lighting.

In 2011, three projects were approved under the Industrial Energy Efficiency Program. These are the first capital retrofits to be incented through the program. One project began generating savings before the end of 2011 and the other two have in-service dates in 2012. Working with Industrial Customers on large projects involving engineering analysis and capital planning requires dedicated resources and individual coaching and support when compared to the residential sector and the commercial lighting program. There remains a need for continued one-on-one facilitation of the process to enable Industrial Customers to manage their daily operational priorities while examining energy efficiency and developing efficiency plans.

Moving forward, Hydro will continue to address the high cost of electricity generation in diesel communities, building on the interest level of home and business through the Coastal Labrador Community Projects. Two program concepts have been developed addressing that specific market. These programs provide direct installation of a wide range of energy

¹ The Hydro Coupon program design was filed in October 2010.

conserving technologies to homeowners and customer support to address the unique needs of the businesses in these small communities.

Future expansions of programming for the residential and commercial sectors are in the development for the new Five-Year Plan. Options for the residential sector include widening the offerings to smaller technologies, such as those addressed in the Coupon Program. In the commercial sector, possible expansions include additional lighting technologies and a potential custom approach, modelled on the IEEP.

Hydro will also continue to work with Newfoundland Power and other partners to study emerging opportunities for CDM programming and develop appropriate strategies for advancing a conservation culture in the Province. As previously discussed, further expansions through takeCHARGE, in partnership with Newfoundland Power, are in development for submission to the Board in 2012 which will expand offerings to the broader residential and commercial sectors.

6 Regulated Program Energy Savings and Program Costs

Table 4 below illustrates the energy savings from Hydro customers in relation to programming associated with the annual regulated deferral request. In 2010, Hydro focused on promoting the Windows Rebate Program, resulting in a strong increase in participation in 2010 but a reduced level of participation in 2011 as promotions then focused on the Insulation Program. These promotions resulted in a very strong customer participation in the Insulation Program. The Coupon Program savings follow the delivery timelines of the program. Launched in October 2010 and running until May 2011, there was a buildup of participation as customers became aware of the program and of the benefits of the new technologies being rebated. The first retrofit project funded through the Industrial Energy Efficiency Program was installed in 2011, resulting in the first measurable savings attributable to that program.

**Table 4: Energy Savings from Deferral Account Activity
(MWh)**

	2009	2010	2011
Windows	31	50	38
Insulation	12	16	229
Thermostats	6	15	16
Coupon Program	0	47	166
Commercial Lighting	3	0	92
Industrial	0	0	165
Total Existing	52	128	706

The costs associated with the delivery of the CDM program portfolio include direct costs for advertising, salaries, rebates and other expenses associated with a specific rebate program. These costs vary depending on the uptake of the program and the number of programs offered. Table 5 below provides a program level breakdown.

**Table 5: Program Costs from Deferral Account Activity
(\$000)**

	2009	2010	2011
Windows	44	41	69
Insulation	40	53	116
Thermostats	13	18	25
Coupon Program	0	113	123
Commercial Lighting	13	0	43
Industrial	57	190	98
Total Existing	167	415	474

7 Program Participation and Savings

The following provides the breakdown of rebate transactions and savings for each of the programs in the Five-Year Plan and the Coupon Pilot Program. These numbers reflect costs and savings associated with activity associated with the Deferral Account.

The estimated energy savings represent savings from participants in that year. These savings will occur each year for the life of the measures installed.

Table 6: Life to Date Program Participation

Program	Number of Rebates			
	2009	2010	2011	Life to Date
Energy Star Window Rebate Program	11	19	41	71
Insulation Rebate Program	14	24	104	142
Thermostat Rebate Program	4	28	32	64
Coupon Pilot Program	-	N/A	N/A	N/A
Commercial Lighting Rebate Program	0	0	6,996	6,996
Industrial Energy Efficiency Program	0	0	1	1

Table 7: Life to Date Energy Savings

Program	Estimated Energy Savings MWh/Yr			
	2009	2010	2011	Life to Date
Energy Star Window Rebate Program	31	50	38	119
Insulation Rebate Program	12	16	229	257
Thermostat Rebate Program	6	15	16	37
Coupon Pilot Program	0	47	166	213
Commercial Lighting Rebate Program	0	0	92	92
Industrial Energy Efficiency Program	0	0	165	165

8 Life to Date Value of Program Energy Savings

The value of energy and demand savings has been estimated from a utility perspective based on overall cost reductions associated with the Deferral Account Activity. The value of savings includes Holyrood fuel savings and impacts on transmission and distribution costs including losses. Estimated energy and demand savings are not based on assumption of timing of installation of the measure during the year, and allow for reductions due to free ridership which is the portion of the incentives issued to customers that we assume would have installed the measure even without the incentive.

Table 8: Life to Date Value of Energy Savings (\$)

Program	2009	2010	2011	Life to Date
Energy Star Window Rebate Program	191	997	3,402	4,590
Insulation Rebate Program	1,163	6,484	21,250	28,897
Thermostat Rebate Program	60	894	2,881	3,835
Coupon Pilot Program	0	4,712	26,608	31,320
Commercial Lighting Rebate Program	0	0	6,723	6,723
Industrial Energy Efficiency Program	0	0	1,019	1,019

Appendix A

CDM Program Concepts

Residential Windows

Program Description

The objective of this program is to increase the installation of *Energy Star* qualified windows, resulting in savings in space heating energy. The program components include rebates and financing, and a variety of education and marketing tools.

Target Market: Residential

This program targets residential customers, including new construction and replacement of existing windows at end of life. Eligibility is limited to electrically heated homes.

Eligible Measures

Eligible measures in this program are *Energy Star* qualified windows.

Delivery Strategy

Delivery of this program will be integrated with the revised *Wrap Up for Savings* insulation and thermostat programs.

Marketing initiatives will include partnering with retailers and trade allies in the home building and renovation industry, to target both do-it-yourself and professional installers. Communications will incorporate the *Energy Star* brand and related marketing support, as well as cross-promotion of the EcoEnergy Retrofit program from Natural Resources Canada. Tools and tactics will include retail and model home point-of-sale materials, advertising, tradeshow, community outreach and trade ally activities. Rebates and financing will be processed through customer application.

Residential Windows

Market Considerations

Energy Star qualified windows make up approximately 10% to 15% of window sales in the province, and understanding of the product is generally poor among customers and retailers. Initial cost is also a barrier to increased market penetration, due to a 10% to 15% price premium. Eligible windows are widely available. Local manufacturers produce approximately 50% of the provincial window sales, and most manufacturers offer *Energy Star* qualified products.

Incentive Strategy

Incentives for this program include rebates and financing. The rebate value will be based on the incremental cost of *Energy Star* qualified windows over the standard type.

Program Monitoring & Evaluation

The program will be monitored for participation level, service quality, and cost effectiveness, and a representative sample of installations will be inspected. Formal evaluations will be conducted within the first year of implementation, and biannually during operation.

Estimated Costs & Energy Savings

	2008	2009	2010	2011	2012	2013	Total
Estimated Costs (\$000s)	40	420	400	500	510	610	2,480
Estimated Cumulative Energy Savings (MWh)	-	230	570	1,020	1,700	2,610	
Total Resource Cost (TRC)	2.4						

Residential Thermostats

Program Description

The existing thermostat rebate program will be revised based on the CDM Potential Study and market research. The continuing objective of this program is to increase the use of both programmable thermostats, which automatically set back room temperature, and high performance thermostats, which control room temperature very accurately, in order to save space heating energy. The program components include rebates and financing, and a variety of education and marketing tools.

Target Market: Residential

This program targets residential customers, including home retrofit and new construction. Eligibility is limited to electrically heated homes.

Eligible Measures

Eligible measures in this program include both programmable and high performance thermostats (for example, those which control within +/- 0.5C.)

Delivery Strategy

Delivery of this program will be integrated with the new residential windows and revised *Wrap Up for Savings* insulation programs.

Marketing initiatives will include partnering with manufacturers, retailers, electrical contractors, as well as homebuilders and real estate professionals to educate consumers regarding the energy savings and comfort benefits of programmable and high performance thermostats. Communications will incorporate cross-promotion of the EcoEnergy Retrofit program from Natural Resources Canada. Tools and tactics will include retail and model home point-of-sale materials, advertising, tradeshow, community outreach and trade ally activities. Rebates will be processed directly by authorized retailers and through customer-submitted coupons.

Residential Thermostats

Market Considerations

Sales of programmable and high performance thermostat types make up less than 10% of total thermostat sales provincially. Customer awareness of the important role of thermostats in heating system efficiency is low. Initial cost is a barrier to increased market penetration, particularly for new home construction where continued use of minimum quality thermostats represents significant lost opportunity. Availability of electronic high performance thermostats is currently limited in most areas, though programmable types are widely available.

Incentive Strategy

Incentives for this program include rebates and financing. The rebate value will be based on the incremental cost of the targeted thermostat types over the standard type.

Program Monitoring & Evaluation

The program will be monitored for participation level, service quality, and cost effectiveness, and a representative sample of installations will be inspected. Formal evaluations will be conducted within the first year of implementation, and biannually during operation.

Estimated Costs & Energy Savings ¹

	2008	2009	2010	2011	2012	2013	Total
Estimated Costs (\$000s)	-	300	220	280	230	270	1,300
Estimated Cumulative Energy Savings (MWh)	-	270	650	1,210	1,910	2,650	
Total Resource Cost 2.4							

¹ Includes the cost of revising the existing program and the resulting energy savings. Excludes the cost and energy savings of existing program.

Residential Insulation

Program Description

The existing *Wrap Up for Savings* program will be revised based on the CDM Potential Study and market research. The continuing objective of this program is to increase the insulation level in basements, crawl spaces, walls and attics, resulting in savings in space heating energy. The program components include rebates and financing, and a variety of education and marketing tools.

Target Market: Residential

This program targets residential customers, including home retrofit and new construction. Eligibility is limited to electrically heated homes.

Eligible Measures

Eligible measures in this program include insulation upgrades to basements, crawl spaces, walls and attics. Rebates for new homes are limited to basement insulation beyond building code compliance. Technical requirements for each upgrade type will be reviewed during program detailed design.

Delivery Strategy

Delivery of this program will be integrated with the new residential windows and revised thermostat programs.

Marketing initiatives will include partnering with retailers and trade allies in the home building and renovation industry, to target both do-it-yourself and professional installers. Communications will incorporate cross-promotion of the EcoEnergy Retrofit program from Natural Resources Canada. Tools and tactics will include retail and model home point-of-sale materials, advertising, tradeshow, community outreach and trade ally activities. Rebates and financing will be processed through customer application.

Residential Insulation

Market Considerations

Older homes and small homes often have inadequate insulation levels. For example, over 45% of homes in the province built before 1950 have uninsulated basements. Most new homes constructed in the province still have no insulation on the concrete portion of basement walls. Initial cost is a barrier to increased market penetration, as is awareness of the impact on space heating energy, and the practical difficulties of renovating an existing living space. Recent experience with the *Wrap Up for Savings* program has shown participation to be responsive to awareness-building marketing activities.

Incentive Strategy

Incentives for this program include rebates and financing. The rebate value will be reviewed and will be restructured based on insulating value (R-value) rather than a prescriptive product list as currently offered.

Program Monitoring & Evaluation

The program will be monitored for participation level, service quality, and cost effectiveness and a representative sample of installations will be inspected. Formal evaluations will be conducted within the first year of implementation, and biannually during operation.

Estimated Costs & Energy Savings ¹

	2008	2009	2010	2011	2012	2013	Total
Estimated Costs (\$000s)	40	1,210	1,210	1,400	1,430	1,590	6,880
Estimated Cumulative Energy Savings (MWh)	-	4,130	8,670	13,660	19,160	25,200	
Total Resource Cost 2.6							

¹ Includes the cost of revising the existing program and the resulting energy savings. Excludes the cost and energy savings of existing program.

Commercial Lighting

Program Description

The objective of this program is to increase the installation of more efficient lighting technologies in commercial buildings. The program components include rebates on a specific list of qualifying technologies, and a variety of education and marketing tools.

Target Market: Commercial

This program targets retrofit of commercial building lighting, encouraging customers to replace existing lighting equipment.

Eligible Measures

The list of eligible measures in this program is based on the technologies identified as eligible for rebate under existing programs offered by other Canadian utilities (for example Ottawa Hydro and BC Hydro). These include T8 fluorescent electronic ballasts or fixtures, compact fluorescent lights (CFLs), and *Energy Star LED* exit signs.

Delivery Strategy

This program is expected to be operational for three years. Delivery will be integrated with future commercial sector programming, which is expected to include a custom project-based incentive program similar to the industrial custom program.

Marketing initiatives will include partnering with lighting manufacturers, distributors, and electrical contractors who will carry the program to potential customers. The program will create business opportunities for trade allies to sell more efficient lighting products. This approach has proven effective in other jurisdictions and in previous Newfoundland Power experience. Tools and tactics will include trade ally and business association activities, such as workshops for contractors and distributors, retail point-of-sale materials, and advertising in trade publications. Demonstration projects will be selected from early participants. Rebates will be processed through customer application.

Commercial Lighting

Market Considerations

The largest portion of the market opportunity in commercial lighting is with standard T12 fluorescent tube lighting with electromagnetic ballasts. This technology is used in approximately 60% of existing commercial building interior lighting in the province, though new construction is almost exclusively using the more efficient T8 fluorescents with electronic ballasts. Federal regulations will remove the electromagnetic ballast from new sales starting in 2010. However, there is a significant opportunity for replacement of existing T12 installations prior to their normal end of life (average lifespan 17 years). Primary barriers to increased use of the more efficient products include the higher initial capital cost, and lack of understanding of the opportunity for energy and cost savings.

Incentive Strategy

Incentives for this program include rebates for a prescriptive list of eligible technologies. The list will be based on the technologies identified as eligible for rebate under existing programs offered by other Canadian utilities (for example Ottawa Hydro and BC Hydro).

Program Monitoring & Evaluation

The program will be monitored for participation level, service quality, and cost effectiveness and a representative sample of installations will be inspected. Formal evaluations will be conducted within the first year of implementation, and biannually during operation.

Estimated Costs & Energy Savings

	2008	2009	2010	2011	2012	2013	Total
Estimated Costs (\$000s)	-	290	310	340	-	-	940
Estimated Cumulative Energy Savings (MWh)	-	590	1,760	2,930	2,930	2,930	
Total Resource Cost	1.1						

Industrial Custom Program

Program Description

The objective of this program is to improve electrical energy efficiency in a variety of industrial processes. The program components include financial incentives based on energy savings, and other supports to enable industrial facilities to identify and implement efficiency and conservation opportunities. This program is a custom program to respond to the unique needs of the industrial market, rather than a prescriptive technology approach.

Target Market: Industrial

This program targets retrofit of industrial process equipment in the transmission level customers served by Newfoundland and Labrador Hydro.

Eligible Measures

Eligibility of projects is based on engineering review and confirmation of estimated energy savings impact. Technologies include, but are not limited to, compressed air, pump systems, process equipment and process controls.

Delivery Strategy

This program will be delivered through a call for proposals to Industrial Customers (IC) for energy saving projects that meet set financial criteria. These proposals will undergo engineering review for approval. Selected projects will be eligible for rebates based on savings and payback period reductions, as well as enabling supports including facility education, energy audits and other customized offerings.

The program will be managed internally with external engineering verification of projects and monitoring and evaluation of energy savings. The utility will take the role of facilitator and consultant in providing methods for ICs to complete project proposals and implement approved projects.

This program model has been used successfully in other jurisdictions. To ensure the cost effectiveness of this model with the unique nature and size of the industrial market in Newfoundland and Labrador, this program will launch as a three-year program using a single call for proposals and full evaluation cycle.

Industrial Custom Program**Market Considerations**

This market requires a one-on-one approach to project design and delivery. The program builds on the work already completed by the ICs, and addresses their unique barriers to improved efficiency, which include, but are not limited to, access to capital and human resources.

The lifecycle for each program transaction will be measured in months rather than weeks because of the need for review, contract development, implementation timelines and post-installation monitoring and evaluation. This type of program requires that facilities have financial and business stability to continue operations for a time period appropriate to achieve cost effective savings.

Incentive Strategy

Incentives for this program include rebates based on energy savings, as well as funding assistance for additional enabling mechanisms. Rebate levels, maximum rebate amounts and payment schedules will be determined in the program detailed design phase. Rebates for each approved project will be determined through the call for proposals process, based on the engineering proposal and following a schedule agreed upon by the customer and utility.

Program Monitoring & Evaluation

The program will be monitored for participation level, service quality, and cost effectiveness, including engineering review and inspection of all projects and assessment of long-term impact on customer processes. Formal program evaluations will be conducted within the first year of implementation, and biannually during operation.

Estimated Costs & Energy Savings

	2008	2009	2010	2011	2012	2013	Total
Estimated Costs (\$000s)	100	1,470	2,640	4,270	-	-	8,480
Estimated Energy Savings (MWh)	-	-	-	20,000	45,000	45,000	
Total Resource Cost	2.9						

Residential Coupon Based Energy Efficiency Program

Program Description

This project is a coupon based energy efficiency program targeting Hydro's 31,000 residential customers located across the province in 220 communities. The program provides both at-the-cash coupon promotion for smaller efficiency technologies and mail in rebates for larger Energy Star appliances. This range allows customers to engage in energy efficiency with a wide range of purchase decisions. The program also provides necessary supports, awareness and mechanisms to allow small community retailers to participate and promote their products. All partners are supported by a local program representatives working in the field.

Target Market: Residential

This program targeted residential customers across a range of technology purchases.

Eligible Measures

Eligible measures include smaller items such as CFLs and LED holiday lights, but also some larger items such as Energy Star lighting fixtures, hot water tank wraps and Energy Star clothes washers. The program includes measures with savings resulting from primarily plug load and water heating savings.

Delivery Strategy

At launch the program has ten partner retailers. Local retailers in targeted communities were approached to procure products and offer the coupons for the duration of the program. The rebates on the ENERGY STAR® qualified dishwasher and refrigerator were made available more widely to the entire Hydro customer base through promotions online, info available through the call centre and bill inserts.

Residential Coupon Based Energy Efficiency Program

Market Considerations

This project was designed to:

- Deliver a new, accessible, TRC positive instant coupon-based energy efficiency program in Hydro communities and gain knowledge on the challenges of using this type of approach in communities of different sizes.
- Generate knowledge of energy conservation measures and awareness of the takeCHARGE program offerings.
- Establish new partnerships in the retail sector and engage them in an ongoing wider product offering program and gain a better understanding of Hydro's customer base on the interest in smaller energy efficiency technologies.
- Increase the market penetration of energy saving products and overall energy efficiency awareness.

Incentive Strategy

Incentives for this program include at-the-cash coupons which reduced the cost of the efficient products for the customer at purchase and two additional ENERGY STAR® appliance products with a mail-in rebate similar to the traditional takeCHARGE Energy Savers Rebate programs.

Program Monitoring & Evaluation

Evaluation components include examining the participation, the administration processes, and attitudes of the partners. These included:

- Coupon uptake: number of coupons distributed and number of coupons redeemed;
- Event participation: number of participants; and
- Retailer and participant experiences: number of participants who learned more about energy conservation, takeCHARGE and energy saving products based on interactions with the program.

Estimated Costs & Energy Savings

Costs (\$000s)	\$240,000-
	\$265,000
Energy Savings (MWh)	473
TRC	2.05

Appendix B

Definition of Deferral Account

Newfoundland and Labrador Hydro

April 22, 2009

Conservation and Demand Management (CDM) Cost Deferral Account
Proposed Definition

The account shall be charged with the costs incurred in implementing the CDM Program Portfolio. The costs will include such items as detailed program development, promotional materials, advertising, pre and post customer installation checks, application and incentive processing, incentives, trade ally training, employee training, and program evaluation costs associated with programs in the CDM Program Portfolio.

The account will exclude any expenditure properly chargeable to plant accounts. The account shall also exclude conservation expenditures that are general in nature, such as costs associated with providing energy conservation awareness, responding to customer inquiries, planning, research and general supervision that are not associated with a specific program in the CDM Program Portfolio.

The account will exclude any expenditure related to programs or incentives that are fully recoverable from other parties, including government. Where a program or initiative is partially funded by other parties, the amount funded will be used to reduce the appropriate expenditures.

Costs associated with Labrador Interconnected customers will be tracked separately from costs associated with the other customers, as programs for the latter are based upon a cost structure which is significantly different from the Labrador Interconnected System and future disposition may be treated separately.

Transfers to, and from, the proposed account will be tax effected.

The disposition of any balance in this account will be subject to a future Order of the Board.