

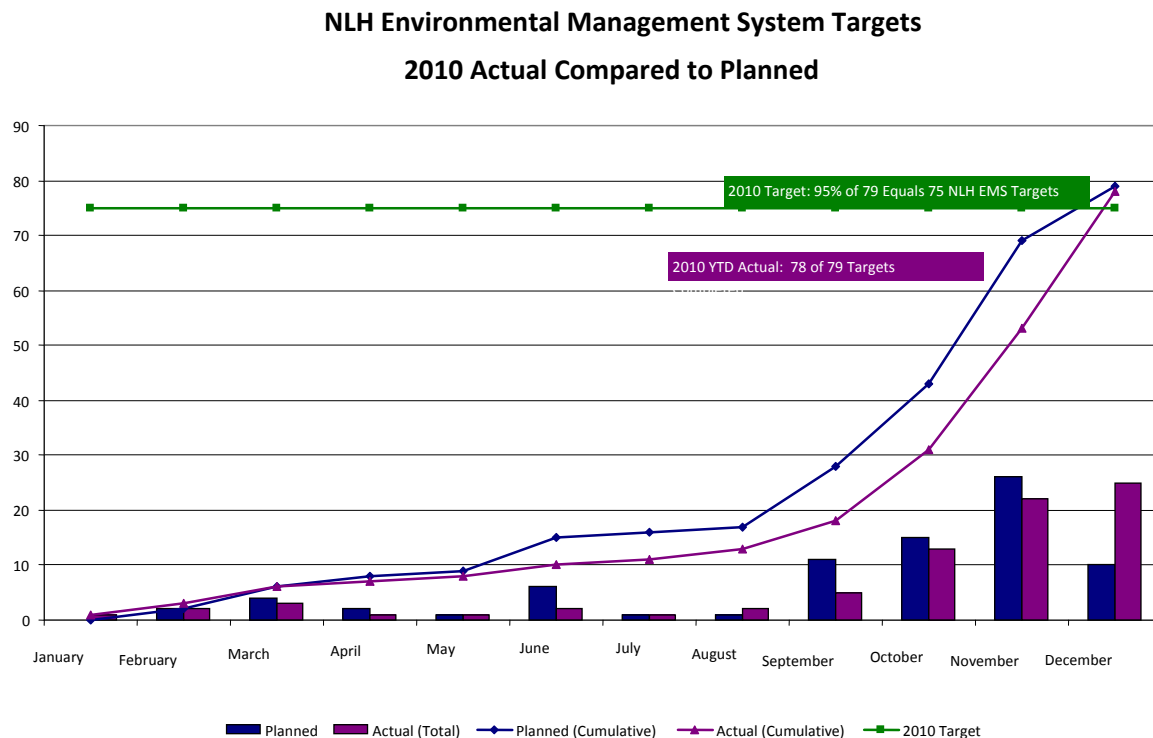
Return 21

## Report on Conservation and Demand Management

Extracted from the December 2010 PUB Quarterly report

### 3.2 Achievement of EMS Targets

The annual target of 95% achievement was met, with 78 of the 79 planned initiatives completed.



### 3.3 Conservation Demand Management (CDM)

#### 3.3.1 Introduction

This section outlines the major activities undertaken in 2010 by Hydro to address energy efficiency opportunities with Hydro's customers and internal facilities.

2010 was the first full year of activity for the new takeCHARGE rebate programs for residential and commercial customers. The joint utility program saw an increase in both participation and community engagement on conservation and efficiency opportunities in general. Hydro also launched the Industrial Energy Efficiency Program (IEEP), providing a customized approach to energy savings for Hydro's industrial customers.

Work has continued with government partners, community groups, individual customers to engage on energy efficiency and to create energy savings, and with those who sell and distribute energy saving technologies to assist in their promotions to the marketplace.

### 3.3.2 Energy Efficiency Planning and Coordination

Hydro and Newfoundland Power continue to work closely to develop and implement the takeCHARGE program for energy efficiency. There are three rebate programs currently offered provincially to residential customers and one program for commercial customers. These programs offer a prescriptive rebate for eligible technologies. They are:

- Residential
  - i. Insulation
  - ii. Energy Star Windows
  - iii. High Efficiency and Programmable Thermostats
- Commercial
  - i. Lighting

Hydro launched two additional programs in 2010 to address the unique nature of Hydro's customer base. The IEEP provides a customized approach to identification of savings opportunities for Hydro's Industrial Customers. This program provides support for opportunity identification through energy audits and feasibility studies as well as capital projects. There are also additional resources available to assist in employee training and awareness on efficiency.

The second program is an "at cash" coupon program offering discounts on smaller technologies including compact fluorescent light bulbs (CFLs), hot water tank wraps and low flow showerheads. Hydro is working with retailers in ten locations throughout its service area to deliver this program with the assistance of an energy efficiency engagement consultant, Summerhill. In addition to the coupons, there are rebates on two Energy Star appliances available to all Hydro customers. This new program is a pilot to determine the interest level in smaller efficiency technologies, explore the challenges of working on an "at cash" program directly with retailers and to determine the applicability of these types of initiatives as a cost effective ongoing component of the takeCHARGE portfolio. The pilot is scheduled to end February 28, 2011.

The continued expansion of the rebate programs has meant a continued effort on training, orientation and efficiency awareness for Hydro employees involved in the direct administration of the rebates as well as those external to the program.

### 3.3.3 Customer Awareness

As a provincial initiative, takeCHARGE promotions are primarily through mass market media with TV, internet and print campaigns. The program promotes cost savings of the rebated technologies as well as the energy and comfort of having a more efficient home or workspace.

Hydro also participated in ten trade show events across the province, promoting the takeCHARGE brand to residential and commercial audiences.

As takeCHARGE is a joint utility program, mass marketing efforts were focused on getting customers to visit the website for information. With an increasing number of customers online, takeCHARGE has also begun using social media to promote the rebates and community initiatives through facebook. This new approach has created positive discussion among customers on energy efficiency.

### 3.3.4 Community Outreach

Community based promotions and marketing are critical to creating awareness of the program and providing rebate program detailed information. Hydro participated in a number of community sporting and social events to promote the takeCHARGE program with positive response. In working with local volunteers with the Seniors Resource Centre and Canadian Blood Services, energy efficient products and information has been distributed to a wide geographic area. Engagement of retailers also continues, with training sessions available to assist in keeping floor staff knowledgeable on products and rebates.

As part of Energy Efficiency Week 2010, during the week of October 2 to 8, takeCHARGE launched the takeCHARGE of Your Town Challenge challenging municipalities to find ways to save and win prizes. Participating towns will work to reduce their consumption over a three month period as compared to the same period the previous year. The takeCHARGE team has been working with municipalities to provide suggested ways to encourage conservation in their residents and business owners. With 33 communities in Hydro's service area signed on to the Challenge, there has been significant effort and awareness created on the many ways to conserve.

### 3.3.5 Energy Efficiency Programs

#### *Rebates*

Rebate activity has been steadily increasing since the launch in 2009. The residential rebate programs that provide home heating savings have shown increases in participation through the home heating season as customers become more aware of heat loss during the cold winter months. The Energy Star Appliance rebate launch was timed to take advantage of Christmas purchases and the limited time nature of the program should encourage uptake. Understanding the purchase patterns in the markets for the technologies involved is critical to ensuring success.

The following table shows Hydro's rebate activity by month:

Rebate Activity													
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<b>Residential</b>													
Insulation	6	3	8	2	5	5	0	2	1	0	3	3	38
Window	2	0	6	2	4	1	6	2	2	2	2	5	34
Thermostat	5	2	5	3	3	4	0	0	0	9	5	9	45
Appliance												4	4
<b>Commercial</b>													
Lighting					9				55			10	74
<b>Total:</b>	13	5	19	7	21	10	6	4	58	11	10	31	195

*Internal Energy Efficiency*

Hydro continues to take active steps to encourage behaviour change and improve technology and control systems in its own facilities. Installation of variable speed drives, high efficiency lighting, programmable thermostats and other technologies are having energy savings impacts across Hydro's facilities. Employees have been engaged through internal communications efforts promoting tips for home and office energy savings.

Walkthrough energy audits have been conducted at the following facilities:

- Happy Valley, Goose Bay diesel plant and facilities, old warehouse and line shop;
- Port Saunders office building and warehouse; and
- Bishop's Falls office building, warehouse and salvage stores facilities.

These walkthroughs provide the first identification of low and no cost options as well as provide justifications for more formal energy audits and analysis of potential capital projects. Employees have been supportive of the efforts and work has been progressing with retrofits conducted to Hydro Place and planning for other sites.

Additional energy management information has been provided to employees who manage buildings and to the general employee population. Through providing tracking information, promoting activities and training opportunities for designated energy champions in the regions, the network of energy aware employees at Hydro continues to grow.

*Partner and Special Projects*

Hydro continues to be an active participant in discussions with the provincial government regarding the development of plans and initiatives for energy efficiency and conservation across all sectors. During 2010 Hydro partnered with the Department of Natural Resources to promote the Provincial EnerGuide home energy retrofit program in concert with the takeCHARGE rebates.

**3.3.6 Costs**

Hydro's 2010 CDM program costs are outlined in the table below.

Hydro's CDM Program Costs 2010 (\$000's)	
<b>Residential</b>	<b>2010</b>
Insulation	60
Windows	48
Thermostat	19
Hydro Customer Coupon Program	140
<i>Subtotal</i>	<i>267</i>
<b>Commercial</b>	
Lighting	12
<b>Industrial</b>	<b>221</b>
<b>Total</b>	<b>500</b>

Costs associated with general awareness, planning functions and partnership programs and initiatives that would be incurred regardless of the specific rebate programs currently being offered are shown in the following table of Support Costs.

**Hydro's Support Costs 2010 (\$000's) 2010**

Education	106
Support	48
Planning	180
<b>Total</b>	<b>334</b>

**3.3.7 Energy Savings**

Savings for the takeCHARGE rebates has had steady growth. The below table demonstrates the energy savings realized in 2010.

**Hydro Energy Savings (MWh) 2010**

<b>takeCHARGE Program Portfolio</b>	
Residential Insulation	84
Residential Windows	27
Residential Thermostat	25
Coupon Program	64
Commercial Lighting	10
Industrial	0
<b>Other Hydro Initiatives<sup>1</sup></b>	<b>3,777</b>
<b>Total</b>	<b>3,987</b>

**Hydro Energy Savings (MWh) 2009**

<b>takeCHARGE Program Portfolio</b>	
Residential Insulation	31
Residential Windows	12
Residential Thermostat	6
Commercial Lighting	3
Industrial	0
<b>Other Initiatives</b>	
Hydro existing <sup>2</sup>	1,309
Wrap Up for Savings 2009 <sup>3</sup>	38
Coastal Labrador Community Energy Efficiency Pilot Project <sup>4</sup>	987
Outreach and Promotions	339
LED Distribution with Canadian Blood Services	334
<b>Total</b>	<b>3,059</b>

<sup>1</sup> Includes savings currently on the system from previous year's activities, as well as outreach activities.

<sup>2</sup> Reflects savings currently being seen on the system from activities that have taken place previous to 2009. For example, previous rebates issued through the Wrap Up for Savings program would create savings for approximately 25 year period, whereas a CFL distribution would create savings for approximately five years.

<sup>3</sup> Wrap Up for Savings was active until June 2009 when it was replaced with the takeCHARGE Energy Savers Residential Insulation program.

<sup>4</sup> Savings are modeled savings from the technologies included in the energy efficiency kits distributed to participating homeowners.

We have surpassed the overall target of 5.8 GWh of savings, with 6.7 GWh of annual savings in place to the end of 2010.

### 3.3.8 Outlook

2011 will see growth in the residential and commercial rebate program participation and the implementation of the first Industrial Custom Efficiency Program projects. Efforts will continue to strengthen and expand the network of retailers and community groups to further reach customers on a community level.

Hydro will also continue to work with the Department of Natural Resources to promote additional provincial and Federal Government energy efficiency programs.

### 3.4 Five Year Rolling Average Number of Reportable Spills

The table below identifies the number of reportable spills for Hydro in each year since 2005.

Reportable Spills						
Year	2005	2006	2007	2008	2009	2010
Number of Reportable Spills	15	8	22	5	9	7

The five year rolling average to 2009 is 12 reportable spills. The seven reportable spills in 2010 represent a 40% reduction from this average.

### 3.5 Completion of Waste Reduction Opportunity Study

Waste reduction potential is dependent on local area opportunities. Potential initiatives identified for offices in Holyrood, Bishop's Falls and Bay d'Espoir were implemented. Additional initiatives to reduce selected waste streams entering landfills have been identified and will be pursued subject to budgetary approvals in future years.

### 3.6 takeCHARGE Celebrates Energy Efficiency Week

During Energy Efficiency Week, the takeCHARGE teams went to various areas of the province providing homeowners with hands-on advice and practical tips to make their homes more energy efficient. The takeCHARGE teams also hosted energy efficiency events at building supply stores providing energy efficiency tips and details on the takeCHARGE Energy Savers Rebate Programs. Customers who purchased programmable thermostats at these events doubled their savings and received a \$20 rebate per thermostat.