2013 takeCHARGE Rebate Program Evaluation

2013 takeCHARGE Rebate Program Evaluation
(Redacted Version)

NEWFOUNDLAND POWER
A FORTIS COMPANY

Table of Contents

1.0 Objective

The objective of the *takeCHARGE* Rebate Program Evaluation is to gather and analyze program process data and market information to assess potential program modifications, identify future opportunities, improve processes and develop marketing strategies for 2014 and beyond.

1.1 Scope

The 2013 rebate program evaluation is comprised of the residential rebate programs insulation, thermostats and ENERGY STAR windows. It covers 2013 calendar year.

1.2 Definitions

New Homes: Any home that has an application date within 9 months of its service date.

Retrofit: Any home that has an application date greater than 9 months of its service date.

2.0 Residential Participant Demographics

2.1 Eligible Customers

In order to be eligible to participate in the *takeCHARGE* rebate programs, a customer's home must be electrically heated or use at least 15,000 kWh per year.

Table 1 below provides the total customers per area and the corresponding total number of customers eligible to participate in the residential *takeCHARGE* rebate programs in 2012 and 2013.

Table 1: Eligible Customers by Area 2012-2013

Area	Total Residential Customers	Eligible Customers	% Eligible	2013 Rebate Participants	2013 Rebates as % Eligible	2012 Rebate Participants	2012 Rebates as % Eligible
St. John's	95,276	45,115	47%	3,939	8.7%	3,613	8.2%
Carbonear	31,882	13,132	41%	487	3.7%	304	2.3%
Clarenville	14,290	5,005	35%	176	3.5%	128	2.6%
Burin	10,188	5,008	49%	185	3.7%	91	1.8%
Grand Falls-Windsor	18,813	6,759	36%	326	4.8%	161	2.4%
Gander	17,781	6,750	38%	230	3.4%	195	2.9%
Corner Brook	19,662	7,504	38%	269	3.6%	232	3.2%
Stephenville	14,103	5,643	40%	139	2.5%	127	2.3%
TOTAL	**221,995**	**94,916**	**43%**	**5,751**	**6.1%**	**4,851**	**5.2%**

Table 2 below shows the cumulative eligible customers by area since program inception 2009 to 2013 for the *takeCHARGE* rebate programs.

Table 2: Cumulative Customer Participation by Area
2009-2013

Area	Total Per Area	Eligible Customers	Thermostat Rebates as % Eligible Customers	Window Rebates as % Eligible Customers	Insulation Rebates as % Eligible Customers	HRV Rebates as % Eligible Customers	Total Rebates as % Eligible Customers
St. John's	97,253	45,115	11.01%	10.77%	9.35%	0.07%	**31.20%**
Carbonear	32,792	13,132	4.21%	5.13%	6.41%	0.03%	**15.79%**
Clarenville	14,644	5,005	3.30%	3.92%	4.76%	0.02%	**11.99%**
Burin	10,367	5,008	4.47%	2.58%	6.39%	0.02%	**13.46%**
Grand Falls-Windsor	19,121	6,759	4.04%	5.15%	5.93%	0.01%	**15.14%**
Gander	18,146	6,750	5.07%	5.56%	6.64%	0.03%	**17.29%**
Corner Brook	19,991	7,504	5.06%	5.18%	5.86%	0.00%	**16.11%**
Stephenville	14,393	5,643	2.84%	4.13%	4.94%	0.00%	**11.91%**
TOTAL	**226,707**	**94,916**	**7.44%**	**7.59%**	**7.57%**	**0.04%**	**22.64%**

Conclusion

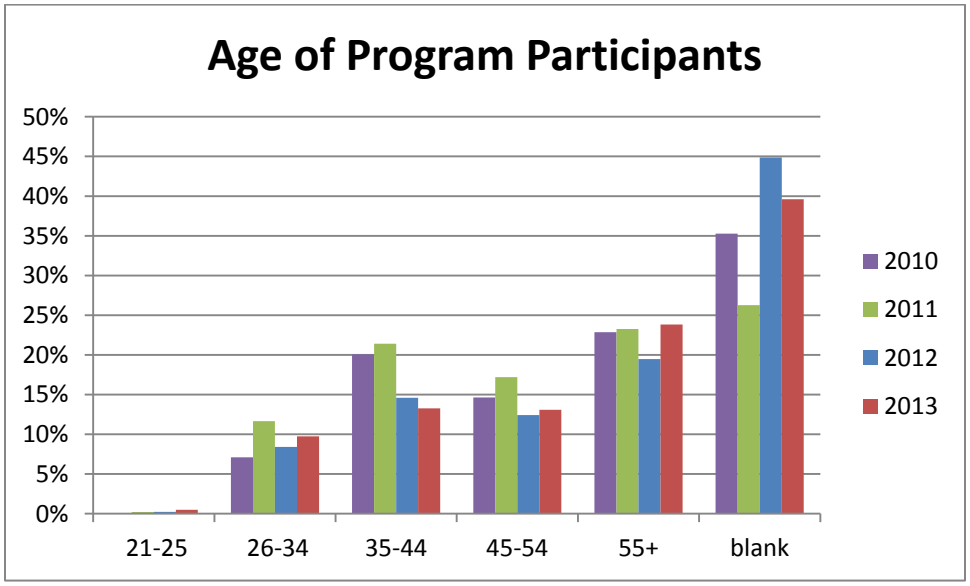
- Approximately 42% of Newfoundland Power customers are eligible for the *takeCHARGE* rebate programs. In 2013, 6.1% of eligible customers participated in one or more of the programs compared to 5.2% in 2012.
- The distribution of the percent of eligible customers across the island in Table 1 is broadly consistent (34-48%).
- Stephenville has the lowest percentage of participation at 2.5% of eligible customers.
- Since 2009, 22.64% of eligible customers have participated in the *takeCHARGE* rebate programs.
- There are still a large number of eligible customers that could participate in the *takeCHARGE* rebate programs; approximately 77%.
- In Table 2, the total percent of customers that have participated in each of the *takeCHARGE* rebate programs are similar (7.44-7.59%) with the exception of the HRV program that was launched in September 2013.

Opportunities/Recommendations

- There should be focused outreach in regions such as Stephenville, Clarenville and Burin that have lower than average participation. Further research is required to determine local market barriers in these areas.

2.2 Age of Participants

Chart 1 below provides the age groups of participants in the residential *takeCHARGE* rebate programs for the period of 2010 to 2013.



Conclusion

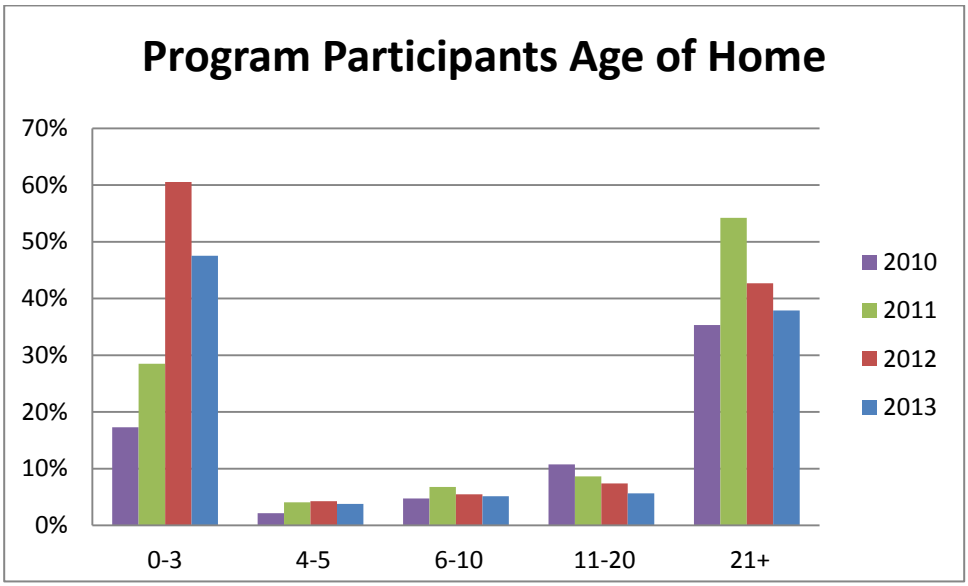
- The distribution of participant age groups has not changed since 2010. The majority participants are ages 55+.
- There are a large number of customers with age information not available from the customer service system.

Opportunities/Recommendations

- There is an opportunity to target the 35-44 age group with specific marketing directives to help increase participation in the rebate programs.

2.3 Age of Homes

Chart 2 below provides the age of home of participants in the residential *takeCHARGE* rebate programs for the period of 2010 to 2013.



Conclusion

- The distribution of the participant age of home has not changed since 2009. The majority participants either have a home 0-3 years or 21+.
- In 2013 the majority participants had a home 0-3 years.

Opportunities/Recommendations

- There is an opportunity to promote the insulation and thermostat programs to customers in houses between the ages of 4 to 20 years. Customers are unlikely to install new windows within this age range as there may still be useful life existing in this technology.

2.4 Building Contractor Participation

Table 3 below compares homeowner participation to contractor participation in the *takeCHARGE* residential rebate programs in 2012 and 2013.

Table 3: Homeowner vs. Contractor Incentives 2012 to 2013							
Program	**2013 Contractor Incentives**	**2013 Homeowner Incentives**	**2013**	**2012 Contractor % of Rebates**	**2013 Contractor % of Rebates**	**2012 Homeowner**	**2013 Homeowner % of Rebates**
Windows	$224,142	$395,937	$620,079	47%	36%	53%	64%
Insulation	$148,751	$271,654	$420,405	53%	35%	47%	65%
Thermostat	$9,800	$70,005	$79,805	2%	12%	98%	88%
HRVs	$0	$7,175	$7,175	-	0%	-	100%
TOTAL	**$382,693**	**$737,596**	**$1,120,289**	**44%**	**34%**	**56%**	**66%**

Table 4 below identifies the average rebate for ENERGY STAR windows, Insulation and Thermostats for 2011 through 2013, broken down by residential customer and contractor.

Table 4: Average Rebate by Contractor versus Customer 2011-2013						
Program	**2011 Customer**	**2011 Contractor**	**2012 Customer**	**2012 Contractor**	**2013 Customer**	**2013 Contractor**
Windows	$293	$463	$307	$369	$271	$367
Insulation	$543	$371	$290	$308	$289	$247
Thermostats	$43	$59	$69	$127	$51	$48

Table 5 below provides information on the contractors who participated in the *takeCHARGE* rebate programs, the location and the dollar value of participation for 2011 through 2013.

Table 5: Building Contractor Participation 2011 to 2013						
Contractor	**Location**	**2011**	**2012**	**2013**	**% 2013 vs 2012**	**Total 2011 to 2013**
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total		**$87,017**	**$553,116**	**$382,693**	**-31%**	**$1,022,826**

2.5 Contractor Participation by Program

Table 6 below provides information on the *takeCHARGE* rebate programs that the building contractors have participated in 2013.

Table 6: Contractor Participation by Program 2013				
Program	**# of Contractors**	**# of Apps**	**$ Value**	**%**
ENERGY STAR windows	48	611	$224,142	59%
Insulation	39	602	$148,751	39%
Thermostat	10	205	$9,800	3%
TOTAL		**1,418**	**382,693**	**100%**

Conclusion

- 34% of 2013 residential program participation was from contractors, compared to 44% from 2012.
- The total dollars rebated to contractors in 2013 was down 31% vs. 2012 primarily due to decreased contact with contractors in 2013.
- Of the participating contractors in 2013 all are located in of the St. John's and surrounding area.
- The number of contractors participating in the Thermostat Program increased slightly in 2013 however the rebates paid increased threefold. There was a large increase of contractors participating in the electronic thermostat program primarily as a result of the St. John's Energy Reduction Strategy. The numbers of applications increased from 44 in 2012 to 205 in 2013. That is a 366% increase.

Opportunities/Recommendations

- Build on the existing positive relationships with contractors to promote the new HRV program as well as increase promotion of the Thermostat program across the province.

2.6 Participants in Multiple Residential Programs

Chart 3, 4 and 5 below shows the percentage of participants based on the number of *takeCHARGE* rebate programs they participated in 2013.

Chart 3: New Homes Participants

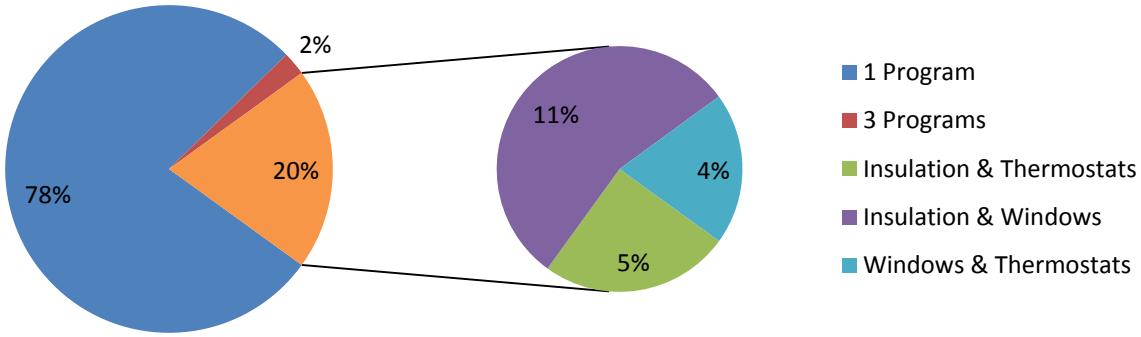
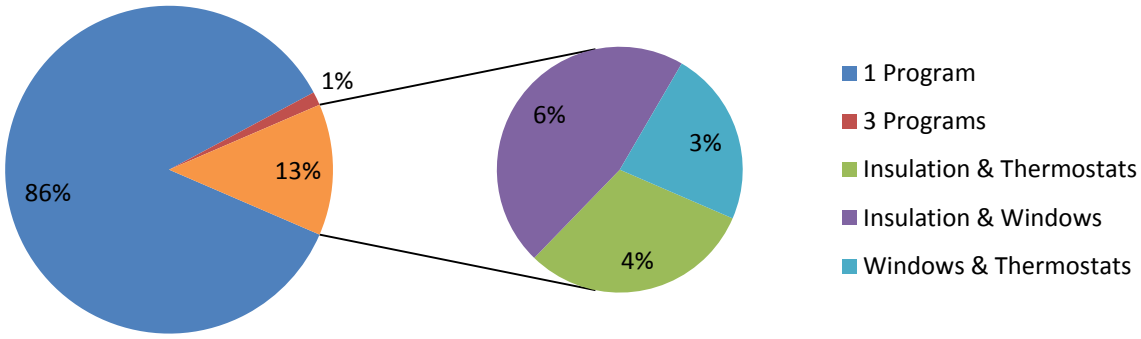
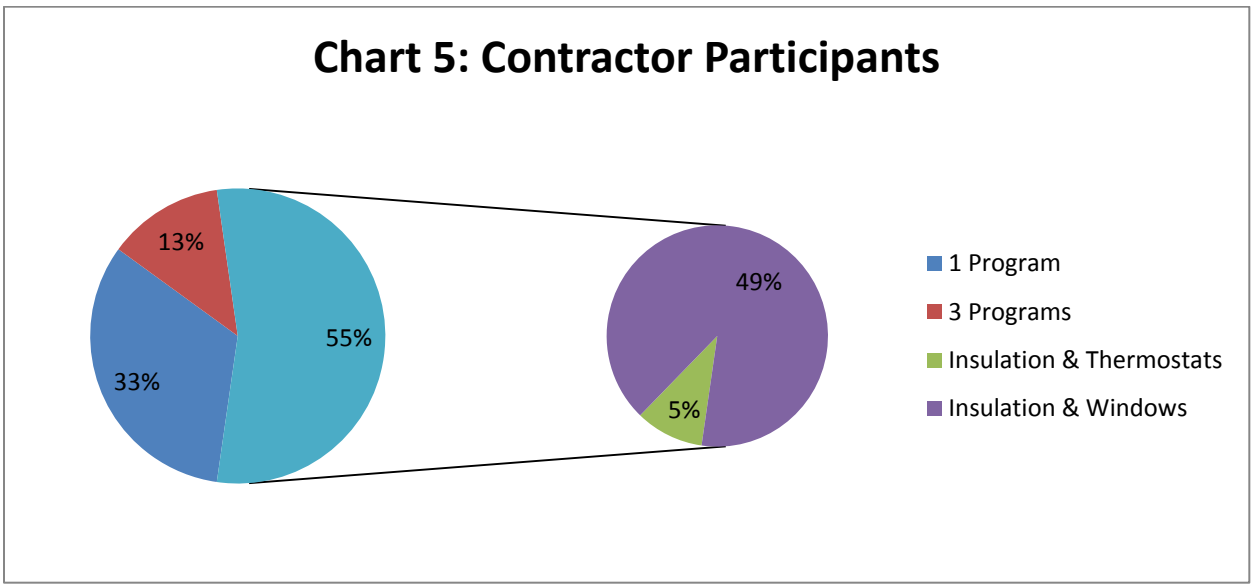


Chart 4: Retrofit Participants





Conclusion

- 78% of new home participants participated in only one program (20% insulation, 12% Thermostats, 68% windows,) 20% of participants participated in 2 programs, and 2% participated in 3 programs.
- 86% of retrofit participants participated in only one program (19% insulation, 36% Thermostats, 44% windows and 1% HRV), 13% participated in 2 programs, and 1% participated in 3 programs.
- 33% of contractor participants participated in only one program (83% windows and 17% insulation), 55% participated in 2 programs, and 13% participated in 3 programs.
- When participants participated in two programs, the most prominent combination is insulation and ENERGY STAR windows.
- The majority of customers that have participated in two programs have the potential to participate in the thermostat program.

Opportunities/Recommendations

- There are significant opportunities within retrofit participants to cross promote the insulation program for customers that have only participated in one program.

2.7 Rebate Submission Lag Time

Charts 6, 7 and 8 below indicate the time between when a customer purchases a product and the time it takes for them to submit their rebate application for each residential program.

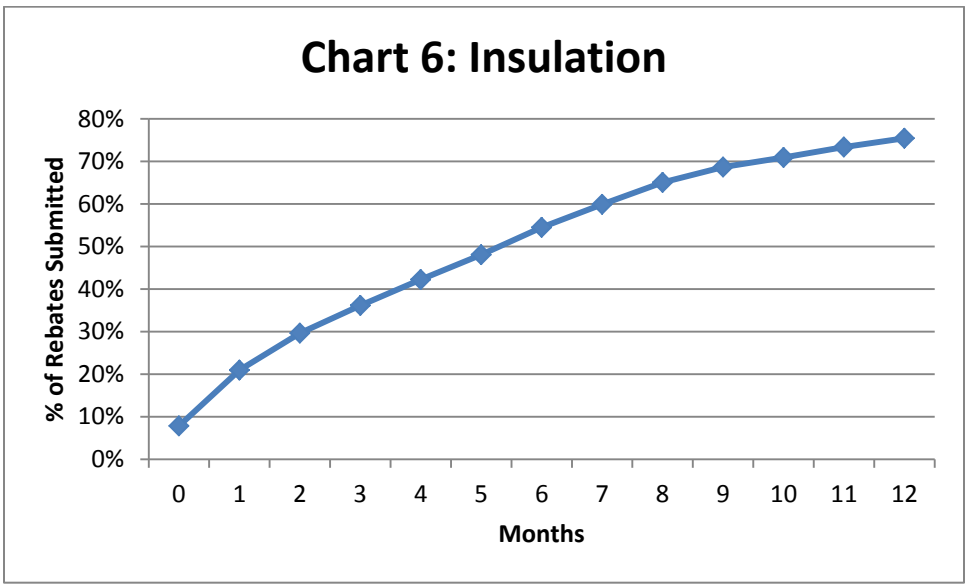


Chart 6: Insulation
% of Rebates Submitted
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12
Months

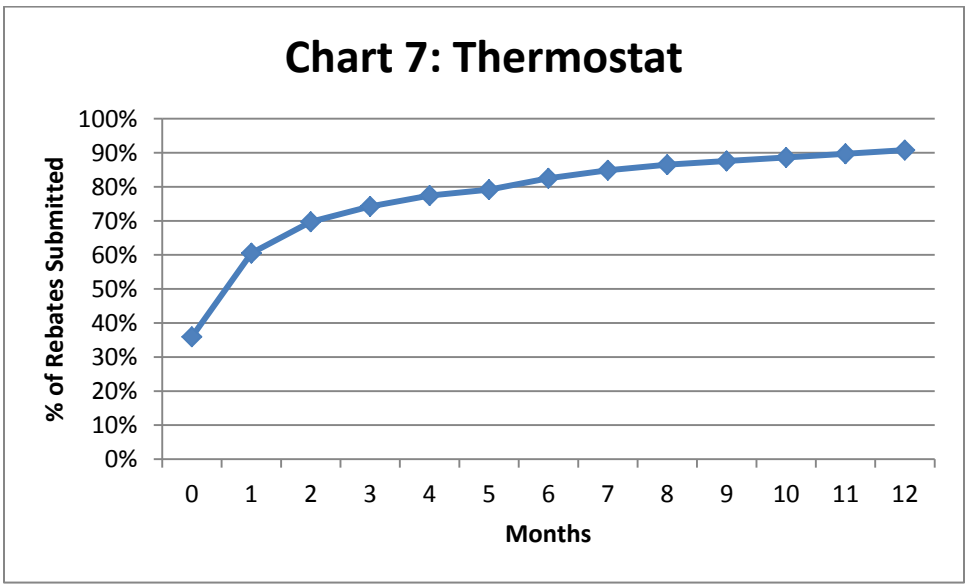
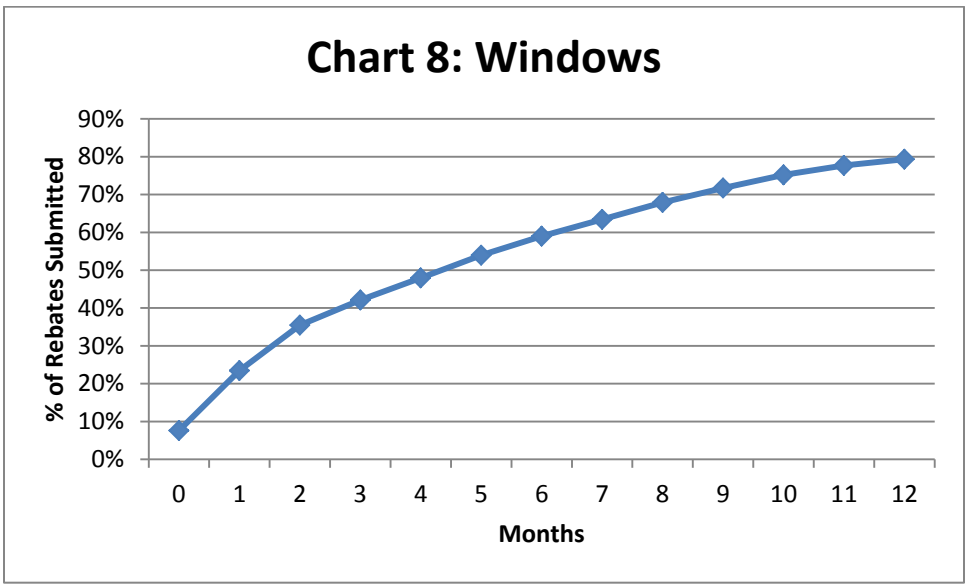


Chart 7: Thermostat
% of Rebates Submitted
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12
Months



Conclusion

- Within 3 months of purchasing insulation, 36% of customers have submitted their rebate application, by 6 months 55% have submitted, by 9 months 69% have submitted and by 12 months, 75% of applications are submitted.
- Within 3 months of purchasing high performance thermostats, 74% of customers have submitted their rebate application, by 6 months 82% have submitted, by 9 months 88% have submitted and by 12 months, 91% of applications are submitted.
- Within 3 months of purchasing ENERGY STAR windows, 42% of customers have submitted their rebate application, by 6 months 59% have submitted, by 9 months 72% have submitted and by 12 months, 79% of applications are submitted.
- Windows and insulation have similar lag times with approximately 75-80% of the rebates being submitted after 12 months.
- Within the first 3 months of submission for the window program there was an increase in application submission of 12%. This is most likely related to the window pilot program.
- Thermostats have a high submission level compared to the other two programs. This is most likely because of the simplicity of the application form for thermostats.

Opportunities/Recommendations

- Online application submission is under development which should also help decrease lag time.

2.8 Cost to Process Rebate Applications

Table 7 below shows the average cost to process a rebate application per program for 2012 and 2013.

Table7: Average Cost per Application per Program 2012-2013						
Average	**Cost per Application 2012**	**Cost per Application 2013**	**% Change 2013 vs 2012**	**Average time to Process Application 2012 (Mins)**	**Average time to Process Application 2013 (Mins)**	**% Change 2013 vs 2012**
Windows	$17.34	$17.94	3%	36	36	0%
Insulation	$18.09	$11.71	-35%	38	23	-40%
Thermostats	$2.20	$2.98	36%	5	6	15%
HRVs	-	$10.73	-	-	21	-
Total Average	**$12.54**	**$10.84**	**-14%**			

Conclusion

- The cost to process windows has remained unchanged from 2012 to 2013**.**
- Window applications are the most time consuming and expensive application forms to process. This is a result of the required data entry per window rebated.
- The cost to process insulation applications reduced by 35%. This may reflect Energy CARs having more experience in 2013. There was a new Energy CAR hired in 2012 and with insulation applications being the most complex, an experienced Energy CAR would reduce the cost and time to process these applications.
- The least cost application to process is the thermostat application. This is due to the fact it requires the least amount of information from a customer.
- The program cost per application and processing time has decreased from 2012 to 2013 by 14%.

Opportunities/Recommendations

- Online rebate submission that imports directly into the Customer Rebate Tracking System could help decrease time required for Energy CARs to process rebate applications.

3.0 Programs

3.1 Insulation

The objective of the Insulation *takeCHARGE* rebate program is to increase the insulation R-value in residential basements, crawl spaces and attics, thereby increasing the efficiency of the home's building envelope and reducing heating energy use. Eligibility for the programs is limited to electrically heated homes, determined on the basis of annual energy usage. Home retrofit projects are eligible. Customers can receive an incentive of one cent per R-value per square foot of insulation added to their attics and two cents per R-value per square foot of insulation added to basement walls or ceilings.

Table 8 below shows the number of insulation participants by area and the percent change for 2011 through 2013.

Table 8: Insulation Rebates Growth by Area 2011-2013

AREA	2011[1]	2012	% Change 2012 vs 2011	2013	% Change 2013 vs 2012
St. John's	309	695	**125%**	1,034	49%
Carbonear	103	101	**-2%**	136	35%
Clarenville	19	28	**47%**	57	103%
Burin	32	30	**-6%**	59	97%
Grand Falls-Windsor	49	64	**31%**	127	98%
Gander	51	72	**41%**	71	-1%
Corner Brook	53	56	**6%**	76	36%
Stephenville	24	50	**108%**	49	-1%
TOTAL	**640**	**1,096**	**71%**	**1,610**	47%

Overall, participation in the insulation program has increased 47%.

[1] The 2011 special insulation offer has been removed from this data.

Table 9 below shows the percentage of applications by age of home from 2011 through 2013.

Table 9: Insulation Applications by Age of Home 2011-2013						
	2011		2012		2013	
New	91	14%	515	47%	646	40%
Retrofit	549	86%	581	53%	964	60%
Total	640		1,096		1,610	

Table 10 below shows the percentage of participants that completed projects that had no insulation prior to participating and those that upgraded existing insulation levels for the period 2012.

Table 10: 2013 Retrofit Insulation Participant Demographics						
Starting R-value	**Basement Walls**		**Attics**		**Basement Ceilings**	
	Rebates	**%**	**Rebates**	**%**	**Rebates**	**%**
None	895	87%	20	5%	191	96%
Existing	136	13%	361	95%	7	4%
TOTAL	**1031**		**381**		**198**	

Approximately 87% of retrofit participants installing insulation in basement walls started with no insulation.

Approximately 5% of retrofit participants installing attic insulation started with no insulation.

Approximately 96% of retrofit participants installing insulation in basement ceilings started with no insulation.

Tables 11, 12 and 13 below show the types of insulation installed in basement walls, ceilings and attics for rebates submitted in 2013.

Table 11: 2013 Types of Insulation Installed In Basement Walls	
Batt	23%
Batt and Styrofoam	3%
Blown In	0%
Sprayfoam	3%
ICF	3%
Styrofoam/rigid board	1%
Blank	66%

Table 12: 2013 Types of Insulation Installed In Basement Ceilings	
Batt	30%
Sprayfoam	5%
Blown In	1%
Blanks	65%

Table 13: 2013 Types of Insulation Installed In Attics	
Blown In	21%
Batt	14%
Extruded polystyrene	0%
Blank	65%

Batt insulation is the most commonly used type of insulation for both basement wall and basement ceiling applications. Blown-in insulation is the most commonly used type of insulation for attic applications.

Table 14 below shows the breakdown of insulation rebates by location and age of homes for 2013.

Table 14: 2013 Breakdown of Insulation Applications by location							
	Basement Wall		Basement Ceiling		Attic		Total
New	477	46%	56	28%	268	70%	801
Retrofit	554	54%	142	72%	113	30%	809
Total	1,031	100%	198	100%	381	100%	1,610

Majority of new homes and retrofit participants are applying for basement wall insulation.

Table 15 below illustrates the average rebate by insulation location and by age of home for 2013.

Table 15: 2013 Average Insulation Rebate			
New	$259		
Retrofit	$223		
	Basement Wall	**Basement Ceiling**	**Attic**
New	$262	$481	$140
Retrofit	$196	$345	$215

The highest average rebate for both new homes and retrofits is for basement ceiling insulation with rebates of $481 and $345 respectively.

Table 16 below shows the average installed insulation square footage per rebate per age of home for 2011 through 2013.

Table 16: Insulation Average Rebated Square Footage 2011-2013									
	Basement Wall			Basement Ceiling			Attic		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
New	901	1,036	756	1,244	994	1,194	1,226	1,054	1,227
Retrofit	704	881	608	876	907	888	1,019	572	1,148

Attic insulation has the largest average installed square footage rebated. The smallest average installed square footage rebated is for basement wall insulation.

Table 17 below shows the average R-Value added to the insulated area for applicants in 2013.

Table 17: 2013 Average R-value added to Insulated Area			
	Basement Wall	Basement Ceiling	Attic
New	17	20	13
Retrofits	16	20	20

Basement wall and basement ceiling insulation have similar average r-value increase for both Recent Builds and retrofit applications. Attic insulation has a larger difference between r-value increase for new homes and retrofit applications.

Table 18 below illustrates the price differential by type and retailer.

Table 18: 2013 Insulation Price Differential			
Store	**R20 23" Batt**	**1" Polybead**	**1" SM**
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
Average Cost	**$52.48**	**$10.90**	**$25.37**

Table 19 below shows the number of Insulation applications in 2013 that have been rejected and why.

Table 19: 2013 Insulation Applications Rejected		
Rejections		
3.2% Rejection Rate		
Reasons:	**#**	**%**
New Construction - Attic not eligible	1	2%
Minimum Required Amount of Insulation not installed	6	12%
Home is not electrically heated or does not use the minimum 15,000 kWh	1	2%
Receipt dated prior to May 1, 2009	2	4%
Required information not provided	42	81%
Total	**52**	**100%**

Insulation has a moderate rejection rate of 3.2%. This reflects a more complex application process to apply for the rebate. The insulation application requires the customer to provide information about the type and amount of insulation as well as the square footage of insulation installed.

Conclusions

- Insulation rebates increased 47% in 2013 compared to 2012. This is primarily due to the push on contractors in 2012, to educate them about changes to the National Building Code and the removal of new homes from program eligibility.
- The majority of basement wall and basement ceiling insulation projects started with zero R-value.
- Batt insulation is the most commonly used type of insulation for both basement wall and ceiling applications.
- Blown-in insulation is the most commonly used type of insulation for attic applications.
- The majority of applications are applying for basement wall insulation.
- The highest average rebates are for basement ceilings in new homes.
- The average insulation square footage rebated is the largest for attics in new homes.
- Retrofit customers on average have been insulating to R16. This is a decrease from R20 in 2012.
- The average cost for batt insulation is approximately $46 and is the most widely used type of insulation.
- Rejection rates for insulation rebate applications are moderate at 3.2%.
- The most common reason for insulation application rejection is that the required information is not provided.

Opportunities/Recommendations

- The insulation type dropdown in the CRT needs to become a required field to allow for better analysis of insulation materials purchased.
- There is a potential to push customers above the current average R value of 16 used in basement wall retrofit projects to the program maximum of R25.
- It will be important in 2014 to educate retrofit customers about the increased minimum and maximum R values required to qualify for the insulation rebate.
- Additional detail needs to be added to the *takeCHARGE* website regarding required documentation for insulation eligibility.

3.2 Thermostat

The Thermostat *takeCHARGE* rebate program encourages installation of programmable and electronic thermostats to allow customers better control of the temperature in their home and save energy. These high performance thermostats allow customers to set back the temperature during the night or when they are away. Eligibility for the programs is limited to electrically heated homes, determined on the basis of annual energy usage. Home retrofit projects and new home developments are eligible. Incentives of $10 for each programmable thermostat and $5 for each electronic high performance thermostat are offered.

Table 20 below shows thermostat rebates by area from 2011 through 2013.

Table 20: Thermostat Rebates by Area 2011-2013					
AREA	**2011**	**2012**	**% Change 2012 over 2011**	**2013**	**% Change 2013 over 2012**
St. John's	869	1,427	64%	1,132	-21%
Carbonear	105	154	47%	99	-36%
Clarenville	25	70	180%	28	-60%
Burin	40	61	53%	50	-18%
Grand Falls-Windsor	53	82	55%	56	-32%
Gander	70	115	64%	56	-51%
Corner Brook	59	129	119%	61	-53%
Stephenville	31	47	52%	28	-40%
TOTAL	**1,252**	**2,085**	67%	**1,510**	-28%

Overall, there was a decrease of 28% in thermostat rebates in 2013 compared to 2012. The largest % decrease was in Clarenville, followed by Corner Brook and Gander. The largest number of participants were located in St. John's.

Thermostat Rebates by Type

Table21 below identifies the number of thermostat rebates for electronic and programmable thermostats received in 2011 through 2013.

Table 21: Thermostat Units by Type 2011-2013						
Type of Thermostat	**2011**	**2012**	**% Change 2012 vs 2011**	**2013**	**% Change 2013 vs 2012**	**Total**
Electronic	831	1,887	127%	3,310	75%	6,028
Programmable	5,046	9,620	91%	5,998	-38%	20,664
TOTAL	**5,877**	**11,507**	96%	**9,308**	-19%	**26,692**

Based on the rebate application data from our Customer Rebate Tracking (CRT) system, 77% of the thermostats rebated are programmable suggesting that when customers decide to focus on energy efficient thermostats, the preferred option is programmable versus electronic thermostats.

Table22 below shows the average rebate for electronic and programmable thermostats in 2013.

Table 22: Average Thermostat Rebate per applicant 2013				
	Electronic Thermostat		Programmable Thermostat	
	#	$	#	$
New	11	$56	5	$49
Retrofit	9	$47	5	$54
Total	10	$51	5	$53

The highest average rebate of $56 is for electronic thermostats in new homes. The lowest thermostat rebate average is also for electronic thermostats for retrofit customers.

Table 23 below shows breakdown of thermostat type rebates by age of home for 2013.

Table 23: 2013 Type Thermostat Rebates by Age of Home		
	Electronic Thermostat	Programmable Thermostat
New	64%	8%
Retrofit	36%	92%

Programmable thermostats are the most rebated type of thermostats for retrofit applications. Electronic thermostats are the most rebated type for thermostats for new home applications.

Table 24 below shows the percent of thermostat rebates for new homes and retrofit projects for 2013.

Table 24: The % New Homes vs. Retrofit Thermostat Rebates 2013		
	New Homes	Retrofit
Thermostats	28%	72%

In 2013, retrofit thermostat rebates are rebated more often than new homes.

Table 25 below shows the contractors that participated in the Thermostat Program in 2013 and where they purchased their thermostats.

Table 25: Contractors Purchasing Thermostats	
Contractor	**Retailer**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

Table 26 below shows thermostats rebates by manufacturer in 2013.

Table 26: The % Of Thermostats by Manufacturer			
Manufacturer	**Programmable**	**Electronic**	**Percent**
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

The highest percent of rebated thermostats were manufactured by Honeywell.

Table 27 below illustrates the price differential of thermostats by type and retailer.

Table 27: 2013 Thermostat Price Differential			
Store	**Manual**	**Electronic**	**Programmable**
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
Average Cost	**$16.41**	**$32.49**	**$45.01**

Table 28 below shows the number of thermostat applications that have been rejected and why.

Table 28: 2013 Thermostat Applications Rejected		
Rejections 0.6% Rejection Rate		
Reasons:	**#**	**%**
Missing required info (receipts)	6	67%
Thermostats are not +-.05 degrees	3	33%
Total	**9**	**100%**

Thermostats have a very low rejection rate. This reflects the simple application process to apply for the rebate.

Table 29 below shows the results for programmable thermostats for 2010 through 2013.

Table 29: Programmable Thermostat Results					
	2010	**2011**	**2012**	**2013**	**Average**
Regular rebate	$52,690	$53,930	$43,910	$57,350	$51,970
Double rebate	$33,620	$700	$80,520	$5,260	
Total	$86,310	$54,630	$124,430	$62,970	
Units					**Average**
Regular rebate	5,269	5,393	4,391	5,735	5,197
Double rebate	1,681	35	4,026	263	
Total	6,950	5,428	8,417	5,998	

Table 30 below shows the list of thermostat promotional events for 2013. All of the events in 2013 offered at a minimum the equivalent of a double rebate.

Table 30: List of Retailer Events for 2013			
Retailer Event	**Date**	**Thermostat Units**	**Rebate Amount**
Retailer Day (Multiple Locations)	27-Apr	203	$2,030
Email Double Offer[2]	Oct 1-Oct 30	263	$5,260
Costco	Nov 12 - Nov 17	1790	$17,900
Retailer Day (Multiple Locations)	19-Oct	112	$1,120
Total	**5**	**2,368**	**$26,310**

Conclusions

- Overall, there was a decrease of 28% in thermostat rebates in 2013 compared to 2012. This decrease may be a result of the number of double rebate offers being decreased in 2013. There was 9 of these events in 2012 and only 1 offered in 2013.
- Electronic thermostats units rebated have increased by 75% over 2012. This is due to the increase in contractor applications for electronic thermostats in new homes.
- Retrofit applications are the most common applications in the thermostat program. This remains unchanged from 2012.

[2] This was a *takeCHARGE* offered double rebate of $20 per thermostat

- The average cost for programmable thermostats has decreased from $51.29 in 2012 to $45.01 in 2013.
- The percentage of participant rejections in the thermostat program has remained consistent with 2012.
- The effect of double rebates on programmable thermostats in 2013 was low because of a change in strategy of partnering with retailers to offer the equivalent of a double rebate without the utility having to pay more in rebates for the same energy savings.

Opportunities/Recommendations

- There may be an opportunity to work with contractors to try and increase the installation of electronic thermostats in new homes, especially outside of St. Johns.
- *takeCHARGE* should continue to partner with retailers to offer the equivalent of a double rebate promotion. Increasing the number of these promotions may increase the participation as it had in 2012.
- The double rebate that was offered in 2013 was a low cost email campaign. It is recommended that whenever a double rebate offer is being considered the costs associated external to the additional rebate are keep to a minimum.

3.3 ENERGY STAR Windows

The ENERGY STAR Windows *takeCHARGE* rebate program encourages customers to purchase ENERGY STAR rated windows over standard windows to improve the efficiency of their home's building envelope and reduce space heating energy. Eligibility for the programs is limited to electrically heated homes, determined on the basis of annual energy usage. Home retrofit projects are eligible. Customers who purchase ENERGY STAR windows can receive a rebate of two dollars per square foot of window installed.

Table 31 below provides the ENERGY STAR window rebates by area for 2011 through 2013.

Table 31: ENERGY STAR® Windows Rebates 2011-2013

AREA	2011	2012	% Change 2012 vs 2011	2013	% Change 2013 vs 2012
St. John's	676	1,983	193%	1,405	-29%
Carbonear	137	175	28%	193	10%
Clarenville	45	61	36%	58	-5%
Burin	34	41	21%	35	-15%
Grand Falls-Windsor	95	96	1%	91	-5%
Gander	93	87	-6%	86	-1%
Corner Brook	71	105	48%	108	3%
Stephenville	65	56	-14%	54	-4%

TOTAL	**1,216**	**2,604**	**114%**	**2,030**	**-22%**

Overall, there was a decrease of 22% in rebates for 2013 compared to 2012.

Table 32 below shows the breakdown of new home applications to retrofit applications for 2010 through 2013.

Table 32: ENERGY STAR Window Applications by Age of Home 2011-2012						
	2011		**2012**		**2013**	
New	257	21%	1,195	46%	653	32%
Retrofit	959	79%	1,389	54%	1,377	68%

Table 33 below shows the average window rebate.

Table 33: 2013 Average Window Rebate	
New	$405
Retrofit	$259

Market Penetration

Table 34 below shows the manufacturer sales by window type for 2009 through 2013.

Table 34: Manufacturer Sales by Window Type 2009-2013										
	2009	**2009**	**2010**	**2010**	**2011**	**2011**	**2012**	**2012**	**2013**	**2013**
Manufacturer	**Clear**	**E/S**	**Clear**	**E/S**	**Clear**	**E/S**	**Clear**	**E/S**	**Clear**	**E/S**
[redacted]	70%	30%	60%	40%	39%	61%	27%	73%	22%	78%
[redacted]	90%	10%	90%	10%	50%	50%	25%	75%		
[redacted]	60%	40%	35%	65%	32%	68%	15%	85%	35%	65%
[redacted]							50%	50%		
[redacted]							30%	70%	30%	70%
[redacted]	N/A	N/A	N/A	N/A	30%	70%	20%	80%	25%	75%

Table 35 below shows the windows rebates by manufacturer for 2012-2013.

Table 35: Window Rebates by Manufacturer		
Window Manufacturer	**2012**	**2013**
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

The market for ENERGY STAR windows in Newfoundland has increased significantly since 2009. [redacted] Windows has the largest market share of windows sales in Newfoundland and 78% of the windows they sell are ENERGY STAR rated. That is a substantial increase in the ENERGY STAR market share since 2009 when our window program first started. [redacted] accounts for 43% of the windows from the window program applications. [redacted] were second, they sold 75% ENERGY STAR windows and represent 8% of the windows from our rebates. The market shift may be a result of the increased awareness and benefits of ENERGY STAR windows, the impact of the St. John's Energy Reduction Strategy and the National Building Code. The exception to this market shift would be Kohler who saw a 20% decrease in sales of ENERGY STAR windows.

Manufacturers indicate that the majority of their sales are for retrofit applications citing a 60-40 split between retrofits and new homes.

Table 36 below shows the price differential for ENERGY STAR windows by retailer for 2013.

Table 36: ENERGY STAR Windows Price Differential	
	AVG DIFF
Retailer	**Per Sq. Ft**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
Average	**$0.49**

Window retailer pricing is very competitive and the price differential between ENERGY STAR and clear glass windows continue to decrease. The price differential of ENERGY STAR and clear glass windows ranges from -$2.17 to $2.20. The average price differential for ENERGY STAR and clear glass windows has decreased from $2.09 in 2012 to $0.49 in 2013. The price differential for some retailers is less than our rebate of $2.00.

Table 37 below shows the results from the Window Retailer Pilot Program in 2013.

Table 37: Window Retailer Pilot Program Results 2013							
Retailer	**Retailer Location**	**# Sales Associates**	**Total Applications Approved**	**Total Associate Incentives Paid**	**Total Rebates**	**Rejection Rate**	**% Retrofit**
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total		22	412	$4,120	$74,216	5%	97%

Table 38 below shows the rejection rate for the windows program in 2013.

Table 38 : 2013 Window Applications Rejected		
Rejections		
2.2% Rejection Rate		
Reasons:	**#**	**%**
Windows do not have LowE Argon Gas	1	2%
Home is not electrically heated or does not use the minimum 15,000 kWh	40	87%
Receipt dated prior to May 1, 2009	1	2%
General Service	4	9%
Total	46	100%

Windows have a low rejection rate of 2.2%. The application process is easy to complete but require detailed receipts, such as the Manufacturing Shipping Slip, which customers can neglect to send in or find it hard to obtain.

Conclusions:

- The ENERGY STAR window program decreased by 22% in 2013. St. John's had the largest decrease of 29%.
- Retrofit applications represent 68% of the applicants from 2013.
- Average window rebates for new homes are almost double the average rebate for retrofits. This indicates that retrofit homes have fewer windows or are smaller homes. This is consistent with 2012 applicants.
- [redacted] represents 43% of the total window rebates. In 2013, 78% of windows sold from [redacted] were ENERGY STAR windows.
- The average incremental cost for ENERGY STAR windows compared to clear glass windows is $0.49. This is a decrease from $2.05 in 2012.
- The Window Retailer Pilot Program was very successful in 2013. 22 store associates promoted the program and assisted customers in filling out their application, 412 customers participated in the program and 97% of participants were completing retrofit projects.
- The rejection rate for the windows program is 2.2%. The majority of rejections are from customers applying who do not have electric heat and do not meet the minimum energy use requirement of 15,000 kwh.

Opportunities/Recommendations

- It is recommended that exiting the ENERGY STAR windows program is evaluated. The market appears to be saturated and the incremental cost is less than the rebate amount. Many customers will pay less than the incentive to upgrade from clear glass to ENERGY STAR windows. This indicates that the market has moved to ENERGY STAR windows becoming the standard.
- The success of the Window Retailer Incentive Pilot shows that is an opportunity to expand this incentive method to other programs. Providing sales associates with more education on the eligibility criteria is required so that the number of rejections decrease. This pilot has also shown that sales associates can help influence retrofit customers purchasing decisions.

4.0 Program Cost per kWh

Chart 9, 10 and 11 below shows the program cost per kWh of energy saved annually for 2009-2013 for insulation, thermostats, and windows. The cost per kWh for the purpose of this evaluation is equal to the program costs (administrative and incentives) over the first year of energy savings for the program.

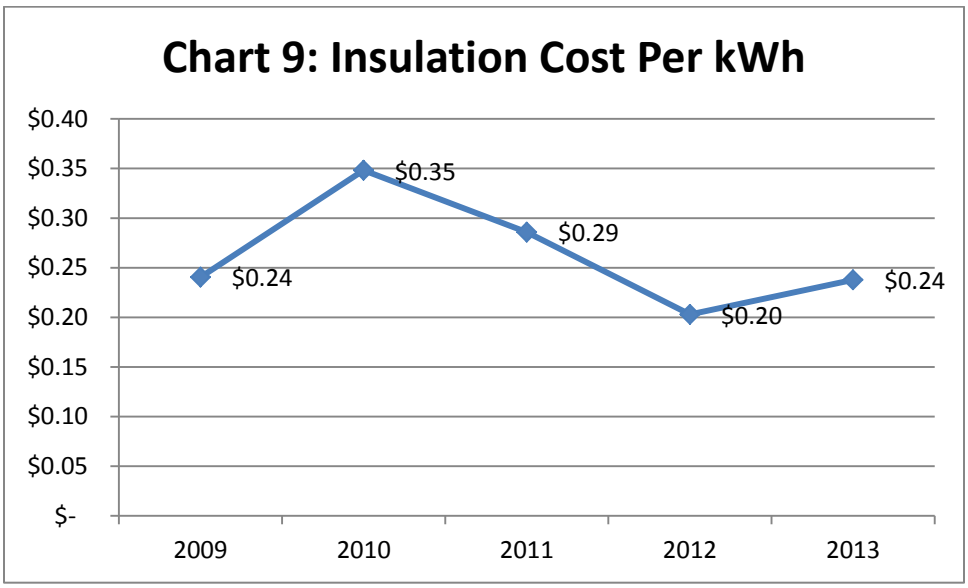


Chart 9: Insulation Cost Per kWh
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$-
$0.24
$0.35
$0.29
$0.20
$0.24
2009
2010
2011
2012
2013

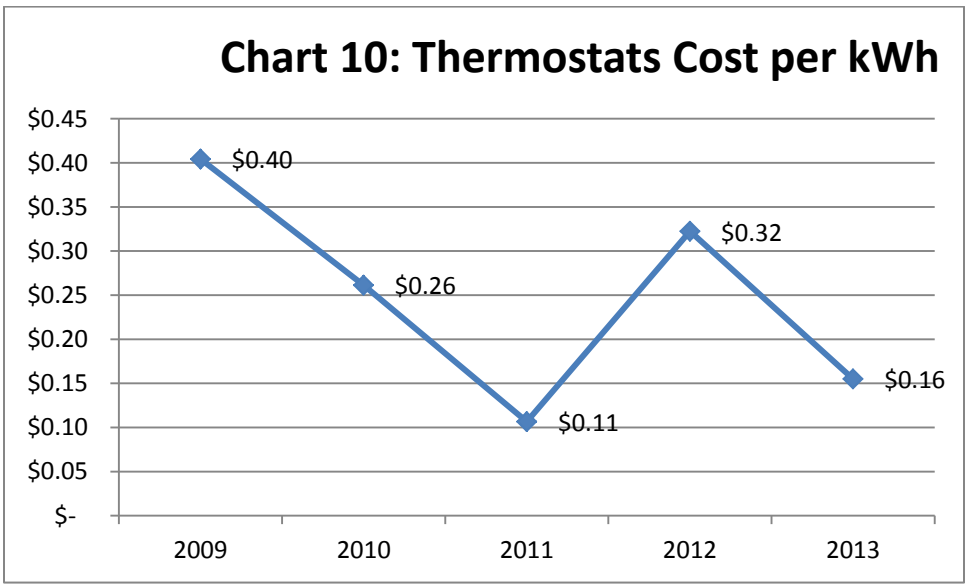
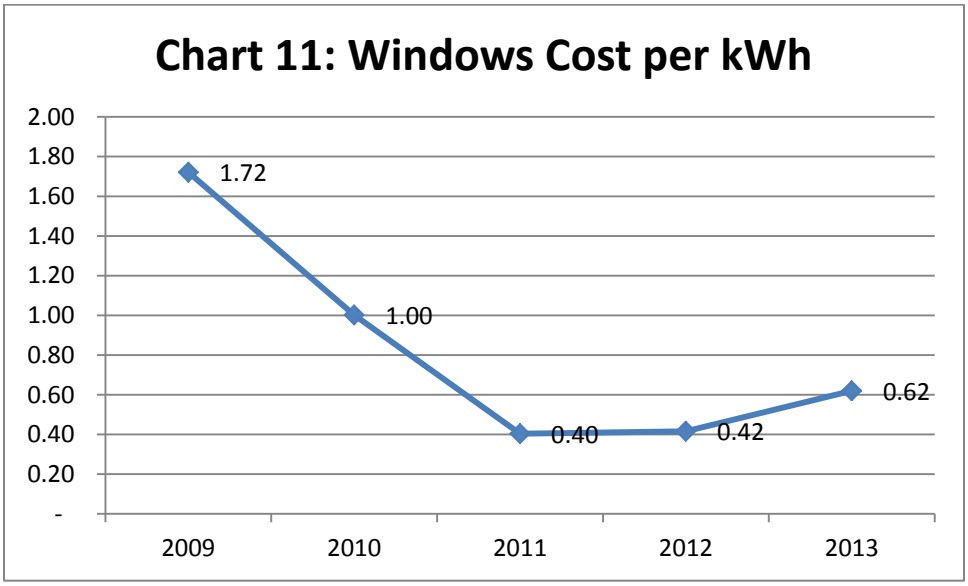


Chart 10: Thermostats Cost per kWh
$0.45
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$-
$0.40
$0.26
$0.11
$0.32
$0.16
2009
2010
2011
2012
2013



Conclusions:

- The windows program is the most expensive program from a cost per kWh perspective.
- The thermostat program is the least expensive program from a cost per kWh perspective. It did increase in 2012 as a result of the number of double rebate offers but reduced again in 2013 because the double rebate offer was limited to a onetime occurrence.

Recommendations:

- Program promotion should focus on programs with a low cost per kWh. This metric should be considered when determining what programs should be targeted.

5.0 Marketing

Table 39 below shows the media spending by type of media in 2013.

Table 39: 2013 Media Spending by Type of Media						
	TV	**Radio**	**Print**	**Online**	**Total Media**	**%**
Insulation	$65,659	$31,230	$31,145	$18,404	$146,438	31%
Thermostat	$32,829	$31,230	$31,145	$18,404	$113,608	24%
Windows	$65,659	$31,230	$31,145	$18,404	$146,438	31%
HRV	$17,595	$20,853	$17,702	$10,304	$66,454	14%
Total	$181,742	$114,543	$111,137	$65,516	$472,938	

Table 40 below shows the media spending by type and season by program in 2013.

Table 40: 2013 Media Spending by Type and Season				
	Total	**Winter**	**Spring**	**Fall**
TV	$181,742	$56,269		$125,473
Radio	$114,543	$31,129		$83,413
Print	$111,137	$20,378	$19,950	$70,808
Online	$65,516	$16,600	$7,700	$41,216
Total	$472,938	$124,376	$27,650	$320,910

Table 41 below shows the media cost per applicant by program in 2013.

Table 41: Media Cost per Applicant Per Program		
	Participants	**Media Cost per Successful Applicant**
Insulation	1,610	$91
Thermostat	1,510	$75
Windows	2,030	$72
HRV	42	$1,582
Total	5,192	$91

Table 42 below shows the website visits that can be attributed to an online ad in 2013.

Table 42: Website visits that can be attributed to an online ad.	
Total	**Cost per visit**
11,458	$5.72

Conclusions:

- The majority of the media buy is spent on insulation and window programs.
- The majority of the media buy was spent in the fall of 2013.
- The highest media cost per application is for the HRV program. The average cost per application for this program is $1,582. This is higher than the other programs because it is new and momentum is still building in the market. Participation is expected to increase thereby reducing the average cost per application.
- The lowest average media cost per application is for windows. This is because approximately 400 of the 2000 applicants that participated in 2013 were received through the Window Retailer Incentive Pilot costing $10 per applicant. When these 400 applications are removed from the 2013 total, the average media cost per application increases to $91.

Recommendations:

- It is recommended to reduce spending on the window program. Market penetration of ENERGY STAR windows is high and as previously recommended in the report, exit strategies for this program should be developed.

6.0 *takeCHARGE* Website

Table 43 below shows the number of visits to the *takeCHARGE* website in 2009 through 2013.

Table 43: Customer Contacts for Energy Conservation Information 2009-2013					
	2009	**2010**	**2011**	**2012**	**2013**
Website Visits	49,648	52,013	72,996	49,202	76,278

Table 44 below shows the number of page views to the *takeCHARGE* website by program in 2009 through 2013.

Table 44: Number of Page Views to the *takeCHARGE* Website by Program 2009-2013					
	2009	**2010**	**2011**	**2012**	**2013**
Insulation	6,385	16,352	26,057	15,645	22,211
Windows	5,351	12,074	13,159	12,234	16,425
Thermostats	4,650	9,382	10,855	9,650	12,753
HRV	-	-	-	-	11,305
Home Page	50,739	54,559	85,996	49,860	76,278

Conclusion

- Visits to the *takeCHARGE* website increased 55% over 2012. Promotions and contests through social media that linked customers directly to the website directly affected this increase in visitors.
- The HRV program page had a substantial number of views, similar to the thermostats program.
- Page views for all programs have increased over 2012.

Opportunities/Recommendations

- There is potential for simplification of the information on the HRV program page. The high number of views indicates interest in the program but may also reflect the technical nature of the program and the need for customers to repeatedly visit the website to verify their eligibility.

7.0 Seasonal Campaigns

Table 45 and 46 below shows the results of the 2013 summer and Christmas rebate campaigns. These campaigns were a call to action for residential customers to submit their application by the deadline with the expectation of receiving their rebate within a stated time period.

Table 45: 2013 Summer Campaign Results			
Program	**Applications Received During Campaign**	**Applications Received Same Time Period 2011***	**Variance**
Insulation	73	30	43
Thermostats	49	54	-5
Windows	158	80	78
Total	**280**	**164**	**116**

Table 46: 2013 Christmas Campaign Results			
Program	**Applications Received During Campaign**	**Applications Received Same Time Period 2011***	**Variance**
Insulation	130	70	60
Thermostats	130	200	-70
Windows	182	179	3
Total	**442**	**449**	**-7**

Conclusion

- Overall, the applications received during the same time frame in 2011 as the summer and Christmas campaigns in 2013 showed that there was no significant increase during the seasonal campaigns.

Opportunities/Recommendations

- The recommendation is to discontinue the use of these seasonal campaigns as they exist currently. The participation overall is not increasing compared to previous years. The associated costs of these campaigns increase the cost per kWh of the programs. If the campaigns are to continue they must be restructured so that the messaging focuses on the purchase and installation of the technologies vs. submitting applications.

8.0 Retailer

For all three residential programs, the customer is required to purchase their energy efficient product from a retailer and submit the receipt and application to Newfoundland Power to receive the rebate as a credit on their electricity bill.

8.1 Retailer Demographics

Table 47 below identifies the top retailers who have more than 10% of the rebates in their area, with the exception of St. John's showing the top 4 retailers in its area. This is calculated based on the number of rebates for products purchased at a particular retailer in relation to the total number of rebates for products purchased at retailers in the same area.

Table 47: 2013 Top Retailers (with ≥10% of rebates) by Area

TOP RETAILER	% of Rebates in Area
St. John's – 4 Stores	**52%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
Carbonear – 3 Stores	**43%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
Burin - 5 Stores	**73%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

Clarenville – 5 Stores	**71%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
Gander - 3 Stores	**60%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
Grand Falls - 3 Stores	**45%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
Corner Brook – 4 Stores	**61%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
Stephenville – 4 Stores	**48%**
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

[redacted]	[redacted]

Conclusion

- In St. Johns in 2013, 4 retailers made up more than 50% of the rebates. This is a slight increase from 45% in 2012.
- In Burin, Clarenville, Gander and Corner Brook areas, a small number of the retailers hold greater than 60% of the rebates in their areas. Customers participating in the rebate program are shopping at a small number of stores when purchasing products. Whereas, in Carbonear, Grand Falls and Stephenville the rebates are spread out among a broader group of retailers, indicating that customers are shopping at a larger number of stores in their area.

Opportunities/Recommendations

- Relationships should be developed with retailers who have less than 10% share of the rebate market to determine why participation is low and to find ways to encourage higher participation and engagement.

9.0 Other Utility Programs

Other Canadian utilities offer similar energy conservation programs for ENERGY STAR windows, Insulation and high performance electronic and programmable thermostats. Below is a listing of these programs

ENERGY STAR® Windows:

Efficiency Nova Scotia – Efficiency Nova Scotia offers an incentive of $40 per window to upgrade a pre-existing rough opening to an ENERGY STAR® qualified models as part of the home energy assessment program.

Hydro Quebec - No rebates but list benefits of ES Windows and patio doors on website. Noteworthy is that they provide a list of retailers and manufacturers.

Thermostats:

Gaz Metro - Gaz Métro will pay a incentive of $30 when installing an ENERGY STAR® eligible programmable thermostat. To take advantage of this offer, the programmable thermostat must be installed by a Gaz Métro Authorized Partners. Limit of one programmable thermostat per heating appliance.

Union Gas – Save $25 on any Programmable Thermostat as credit on utility bill. Offer only available to residential homes that are heated with natural gas furnace. Offer is available on any Programmable Thermostat.

SaskEnergy - Offers residential customers a rebate for purchasing an Energy Star programmable thermostat $15 rebate for the purchase and installation of a programmable thermostat.

Efficiency Nova Scotia – Programmable thermostats for electric baseboard heaters (single-pack) $10 rebate, pack of 3 or more $30 rebate. Instant rebates offered from April 1st – May 15th, 2014.

Insulation:

Manitoba Hydro - Program offers residential customers financial incentives for adding insulation to their existing homes.

- Attic insulation: $0.02/R/square foot
- Wall cavities: $0.04/R/square foot
- Walls, residing: $0.10/R/square foot
- Foundation walls: $0.03/R/square foot

Fortis BC – With support from utility partners, FortisBC and BC Hydro, the LiveSmart BC: Efficiency Incentive Program is continuing until March 31, 2014. Rebates are available for insulation.

- Up to $1,200 for exterior wall insulation
- Up to $1,000 for basement insulation
- Up to $600 for attic insulation

Efficiency Nova Scotia - Offers residential customer rebates for installing energy-efficient insulation.

Table 48: Incentives Based On Final Insulation Value for Basement

Percent of Wall Area Insulated	Between RSI 1.76 (R-10) and RSI 4.05 (R-23) in $	Greater than RSI 4.05 (R-23) in $
20%	125	250
40%	250	500
60%	375	750
80%	500	1000
100%	625	1250

Table 49: Incentives in $ Based On Final Insulation Value of Ceiling

Initial Insulation Level	To RSI 7.04(R-40)	To RSI 8.81(R-50)	To RSI 4.93 (R-28)
Attic less than RSI 2.11 (R-12)	500	750	750
Attica between RSI 2.11 (R-12) and RSI 4.40 (R-25)	250	375	250
Flat roof and/or cathedral ceiling between RSI 4.40 (R-25) and RSI 6.16 (R-35)	NA	125	NA

10.0 Auditing Process

All residential rebates are subject to a random audit of the technology installed within 15 months of the application submission date. Five percent of all participants are audited through phone, email or on-site visit.

Table 50: Audit Feedback 2013					
Region	**Total Rebates Reviewed**	**Insulation**	**Thermostats**	**Windows**	**Issues/Notes**
Burin	5	1	1	3	Online application submissions are preferred. Found the application process for windows difficult. Programmable thermostats are installed but not programmed.
Carbonear	7	1	4	2	None
Clarenville	6	3	2	1	None
Corner Brook	10	4	2	3	Online application submissions are preferred.
Gander	5	0	3	2	None
Grand Falls	13	5	4	4	None
Stephenville	10	2	4	4	None
St. John's	24	7	11	6	Insulation application was unclear.

Conclusion

- The majority of customers audited had no issues with the programs
- The common issues had to do with the application processes which are currently being simplified and developed for online submission.

11.0 Summary of Opportunities/Recommendations

Residential Participant Demographics

- There is an opportunity to target the 35-44 age group with specific marketing directives to help increase participation in the rebate programs.
- There is an opportunity to promote the insulation and thermostat programs to customers in houses built between 4 to 20 years ago. Customers are unlikely to install new windows within this age range as there may still be useful life existing in this technology.

- Build on the existing positive relationship with contractors to promote the new HRV program as well as increase promotion of the Thermostat program across the province.
- There are significant opportunities within retrofit participants to promote the insulation program for customers that have only participated in one program.
- Online Application Submission is under development which should also help decrease lag time.
- Online Rebate Submission that imports directly into the Customer Rebate Tracking System could help decrease time required for Energy CARs to process rebate applications.

Programs

Insulation Program

- The insulation type dropdown in the CRT needs to become a required field to allow for better analysis of insulation materials purchased.
- There is a potential to push customers above the current average R value of 16 used in basement wall retrofit projects to the program maximum of R25.
- It will be important in 2014 to educate retrofit customers about the increased minimum and maximum R values required to qualify for the insulation rebate.
- Additional detail needs to be added to the *takeCHARGE* website regarding required documentation for insulation eligibility.

Thermostat Program

- There may be an opportunity to work with contractors to try and increase the installation of electronic thermostats in new homes, especially outside of St. Johns.
- *takeCHARGE* should continue to partner with retailers to offer the equivalent of a double rebate promotion. Increasing the number of these promotions may increase the participation as it had in 2012.
- The double rebate that was offered in 2013 was a low cost email campaign. It is recommended that whenever a double rebate offer is being considered the costs associated external to the additional rebate are keep to a minimum.

ENERGY STAR Window Program

- It is recommended that exiting the ENERGY STAR windows program is evaluated. The market appears to be saturated and the incremental cost is less than the rebate amount. Many customers will pay less than the incentive to upgrade from clear glass to ENERGY STAR windows. This indicates that the market has moved to ENERGY STAR windows becoming the standard.
- The success of the Window Retailer Incentive Pilot shows that is an opportunity to expand this incentive method to other programs. Providing sales associates with more education on the eligibility criteria is required so that the number of rejections decrease. This pilot has also shown that sales associates can help influence retrofit customers purchasing decisions.

Program Cost per kWh

- Program promotion should focus on programs with a low cost per kWh. This metric should be considered when determining what programs should be targeted.

Marketing

- It is recommended to reduce spending on the window program. Market penetration of ENERGY STAR windows is high and as previously recommended in the report, exit strategies for this program should be developed.

***takeCHARGE* Website**

- There is potential for simplification of the information on the HRV program page. The high number of views indicates interest in the program but may also reflect the technical nature of the program and the need for customers to repeatedly visit the website to verify their eligibility.

Seasonal Campaigns

- The recommendation is to discontinue the use of these seasonal campaigns as they exist currently. The participation overall is not increasing compared to previous years. The associated costs of these campaigns increase the cost per kWh of the programs. If the campaigns are to continue they must be restructured so that the messaging focuses on the purchase and installation of the technologies vs. just submitting applications.

Retailer

- Relationships should be developed with retailers who have less than 10% share of the rebate market to determine why participation is low and to find ways to encourage higher participation and engagement.