



2010-2011

Power Smart Annual Review

Power Smart Planning, Evaluation & Research Department
Customer Care & Marketing Business Unit
Approved May 1, 2012



EXECUTIVE SUMMARY

The 2010/11 Power Smart Annual Review reports the energy and demand savings, customer energy cost savings, customer participation and associated greenhouse gas emission reductions that have been achieved through Manitoba Hydro's Power Smart initiative, including an assessment against the 2010/11 planned targets outlined in the 2010 Power Smart Plan.

The Power Smart initiative, including persisting savings, has achieved 1,832 GWh and 557 MW in electric savings, 57 million cubic metres in natural gas savings and 1,345 thousand tonnes of greenhouse gas emission reductions.

The electric savings resulting from the Power Smart initiative, including persisting savings, equate to more than a quarter of Winnipeg's power needs. The natural gas savings, including persisting savings, nearly equate to the natural gas needs of Selkirk and Steinbach combined. Together, these energy savings are equivalent to taking an estimated 269 thousand cars off the road for one year.

Overall, 2010/11 was a successful year for Manitoba Hydro's Power Smart portfolio. In 2010/11 alone, the electric Power Smart program achieved 269 GWh and 220 MW in electric savings (at generation) which was above the planned savings of 258 GWh and 208 MW. The natural gas Power Smart program achieved savings of 11.2 million cubic metres which was above the planned target of 6.7 million cubic metres.

Total Power Smart expenditures in 2010/11 were \$45 million, which consisted of \$29 million from the Power Smart electric budget, \$11 million from the Power Smart natural gas budget, \$4 million from the Affordable Energy Fund and \$1 million from the Furnace Replacement Budget.

To date, \$389 million (nominal dollars) have been invested in the Power Smart initiative, \$319 million from the Power Smart electric budget, \$58 million from the Power Smart natural gas budget, \$9 million from the Affordable Energy Fund and \$2 million from the Furnace Replacement Budget.

The participant bill reduction due to 2010/11 Power Smart results and persisting savings amounts to an annual reduction of \$73 million, with \$55 million in reduced electricity bills and \$17 million in reduced natural gas bills. By customer sector, \$25 million was saved in the residential sector, \$23 million in the commercial sector and \$25 million in the industrial sector. The participant bill reduction relates only to incentive-based programs and customer service initiatives.

Cumulative customer bill reduction is approximately \$547 million, consisting of \$465 million on electric bills and \$82 million on natural gas bills.

The combined total resource cost (TRC) ratio for electric and natural gas incentive-based programs, including support costs and interactive effects, was 2.6.

The rate impact measure (RIM) ratio for electric incentive-based programs, including support costs, was 1.3, and the average levelized utility cost was 1.9¢/kWh. The RIM ratio (including support costs and interactive effects) for natural gas incentive-based programs, was 0.7 and the average levelized utility cost was 10.8¢/m³.

Awareness levels of the Power Smart brand continue to remain high with 93% of Manitoba respondents saying they recognize the brand name. Customers continue to report the strongest association between Power Smart and energy efficiency, with the vast majority (84%)

of respondents agreeing that the brand projects that message.

This report provides an integrated approach to evaluating the net energy savings achieved through the Power Smart initiative. The results reported are due to the combined electric and natural gas energy

conservation efforts. In this regard, any increased natural gas consumption (due to interactive effects) resulting from electricity efficiency efforts are netted against savings achieved directly through natural gas conservation.

2010/11 Electricity Results

The following tables outline the electricity savings achieved through the Power Smart portfolio during

2010/11 and provide a comparison between achieved results and planned targets, where applicable:

Exhibit E.1

Annual GW.h Savings (at generation) - Power Smart Portfolio

	2010/11 Actual	2010/11 Plan [^]	Cumulative Total [*]
INCENTIVE-BASED PROGRAMS	216	191	1,324
CODES & STANDARDS	51	64	481
CUSTOMER SERVICE INITIATIVES	1	3	26
OVERALL IMPACT	269	258	1,832

[^] Plan estimates are from the 2010 Power Smart Plan.

^{*} Savings include actual + persisting results, up to and including 2010/11.

Note: Figures may not add due to rounding.

Exhibit E.2

Annual Average Winter MW Savings (at generation) - Power Smart Portfolio

	2010/11 Actual	2010/11 Plan [^]	Cumulative Total [*]
INCENTIVE-BASED PROGRAMS	210	196	435
CODES & STANDARDS	9	11	113
CUSTOMER SERVICE INITIATIVES	1	1	9
OVERALL IMPACT	220	208	557

[^] Plan estimates are from the 2010 Power Smart Plan.

^{*} Savings include actual + persisting results, up to and including 2010/11.

Note: Figures may not add due to rounding.

MW savings are based on the average of the winter AM & PM system peak savings.

Exhibit E.3

2010/11 Power Smart Portfolio Electricity Costs

Power Smart Portfolio	2010/11
	<i>millions of dollars</i>
INCENTIVE-BASED PROGRAMS	
Efficiency Programs	18.8
Customer Self-Generation Programs	1.6
Rate/Load Management Programs	5.7
	26.1
SUPPORT COSTS & CUSTOMER SERVICE INITIATIVES & STANDARDS	3.3
TOTAL ELECTRICITY PROGRAM COSTS	29.4

Note: Figures may not add due to rounding.

Total Electricity Results (2010/11 Results & Persisting Savings)

In 2010/11, Power Smart initiatives, including persisting savings, saved a total of 1,832 GW.h and 557 MW, which were 6% and 5% above their respective planned 2010/11 energy and demand savings. The cumulative savings to date represent 54% and 61% of the respective forecasted

energy and demand savings at the benchmark year of 2024/25.

The following graphs present the energy and average winter demand savings achieved and corresponding targets.

Exhibit E.4
Electric Energy Savings - Power Smart Portfolio
 Total Savings Achieved vs. Plan at generation

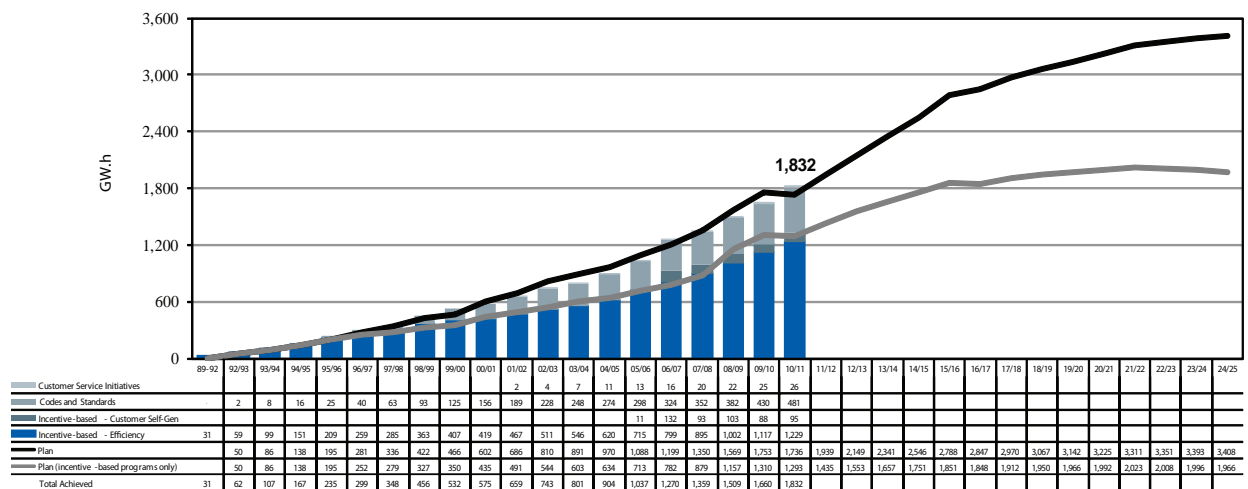
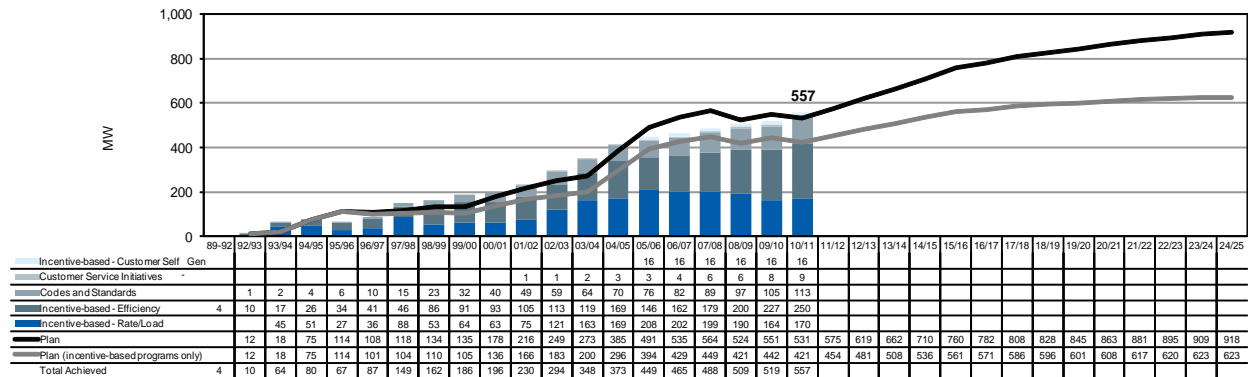


Exhibit E.5
Average Winter Demand Savings - Power Smart Portfolio
 Total Savings Achieved vs. Plan
 at generation



2010/11 Natural Gas Results

The Power Smart portfolio realized natural gas savings of 11.2 million cubic metres during 2010/11, 67% more than planned.

Exhibit E.6

Annual Natural Gas Savings	2010/11 Actual	2010/11 Plan [^]	Cumulative Total [*]
<i>millions of cubic metres</i>			
PROGRAM & INITIATIVE			
Incentive-Based Programs	11.4	7.7	44.1
Customer Service Initiatives	0.8	0.7	19.0
Codes & Standards	0.9	0.4	4.4
	13.0	8.8	67.5
INTERACTIVE EFFECT			
Incentive-Based Interactive effect with Electric Programs	(1.9)	(2.1)	(10.4)
	(1.9)	(2.1)	(10.4)
NET IMPACT OVERALL	11.2	6.7	57.1

[^] Plan estimates are from the 2010 Power Smart Plan.

^{*} Savings include actual + persisting results, up to and including 2010/11.

Note: Figures may not add due to rounding.

Exhibit E.7

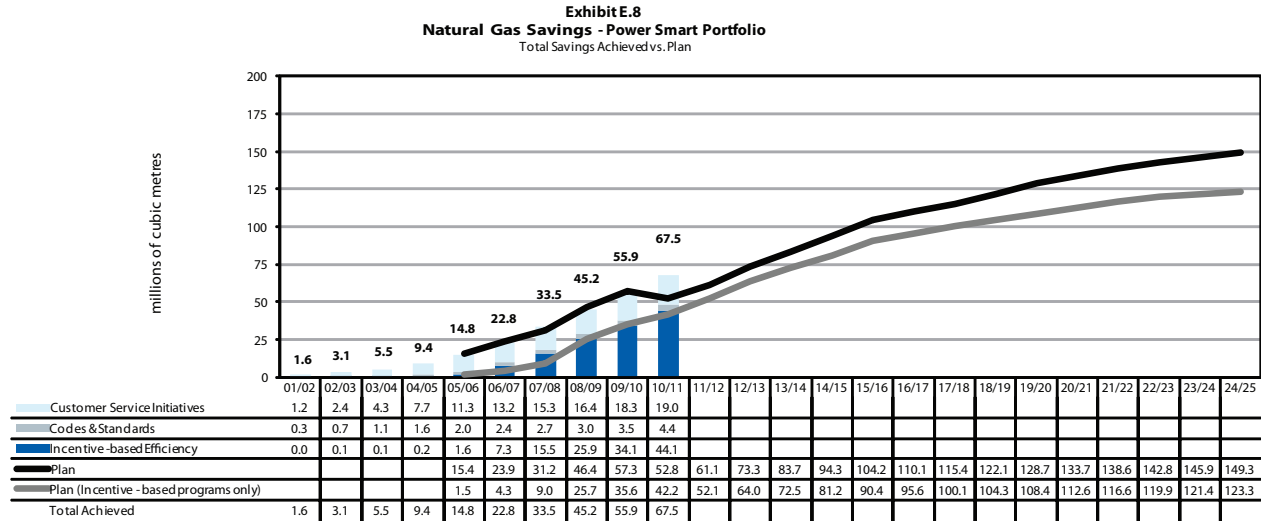
2010/11 Power Smart Portfolio of Natural Gas Costs

Power Smart Portfolio	2010/11
<i>millions of dollars</i>	
INCENTIVE-BASED PROGRAMS	9.8
SUPPORT COSTS, CUSTOMER SERVICE INITIATIVES & STANDARDS	1.4
TOTAL NATURAL GAS PROGRAM COSTS	11.2

Note: Figures may not add due to rounding.

Total Natural Gas Results (2010/11 Results & Persisting Savings)

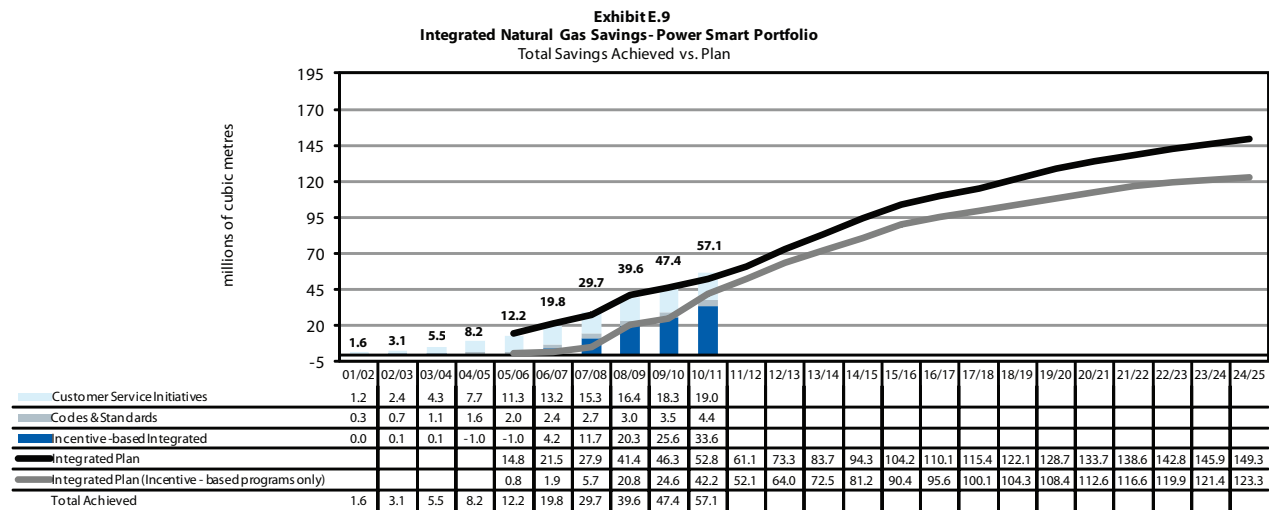
In 2010/11, the Power Smart portfolio saved nearly 68 million cubic metres more than planned. To date, \$58 million has been invested in natural gas activities, which was 28% more than planned. Power Smart natural gas activities.



Note: Figures may not add due to rounding.

Natural Gas Integrated Results

Some electric Power Smart programs have interactive effects which increase the consumption of natural gas. For example, a more energy efficient lighting system emits less heat and therefore results in more energy required for space heating.



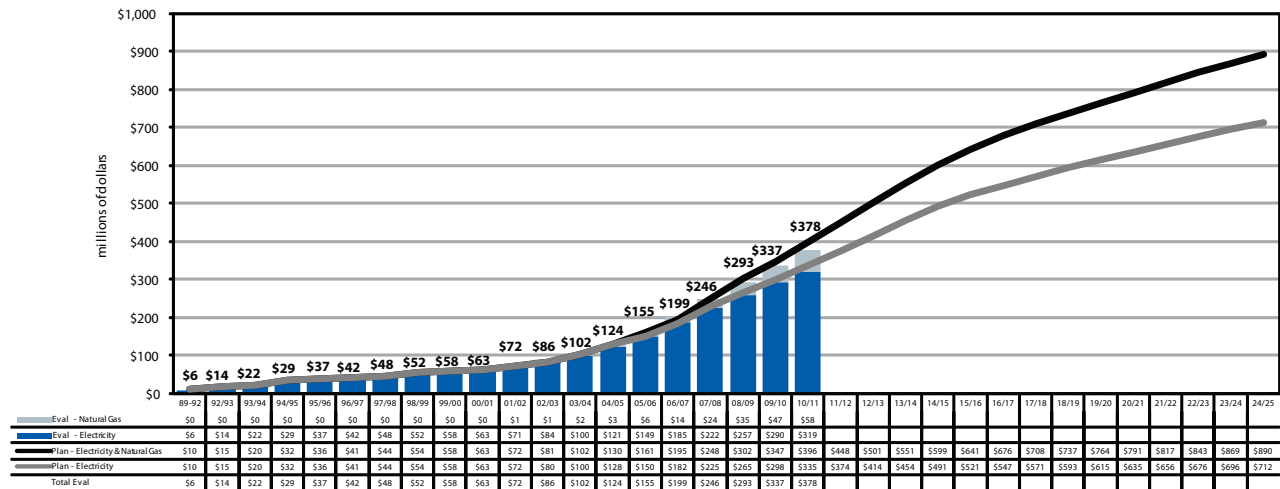
Note: Figures may not add due to rounding.

Power Smart Utility Costs

Total Power Smart expenditures in 2010/11 were \$41 million, of which \$29 million was spent on electricity and \$11 million was spent on gas initiatives. Cumulative Power Smart expenditures were \$378 million, or 5% lower than the budgeted amount of \$396 million. The positive spending variance can be credited to both electric and natural gas efficiency spending, which were both 5% below budget.

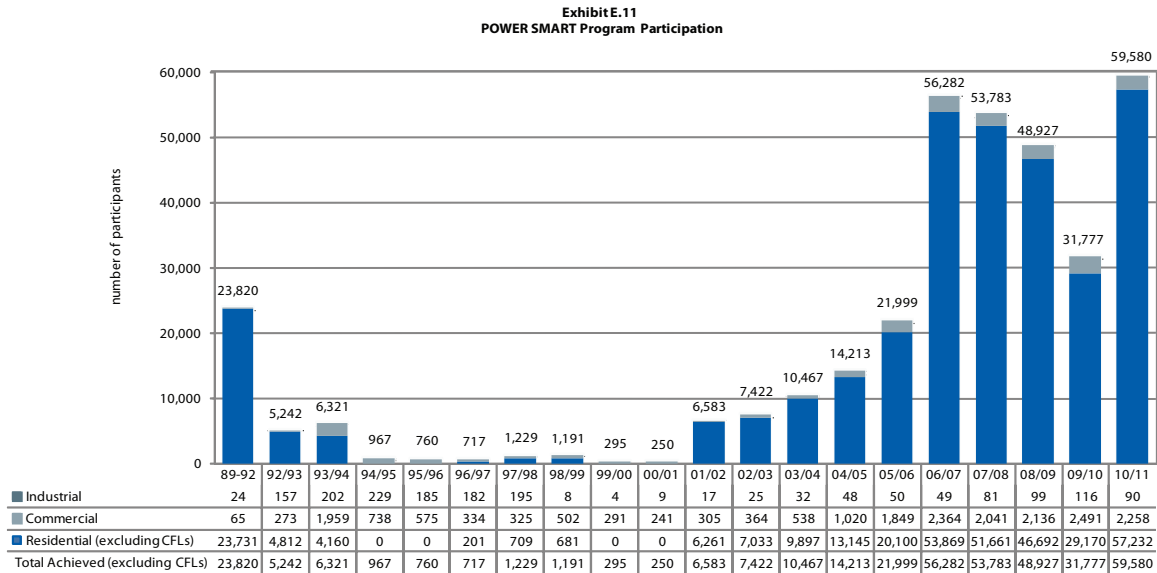
Cumulative Power Smart expenditures of \$378 million represent 42% of the overall cumulative 2024/25 budget, as reported in the IFF-10. The following graph depicts the annual expenditures against the planned expenditures.

Exhibit E.10
Utility Costs - Power Smart Portfolio
 Cumulative Total Utility Costs vs. 2024/25 Plan
 nominal dollars



Customer Participation

The following graph illustrates that participation in Manitoba Hydro's Power Smart programs continues to be strong.



Note: Includes electric and natural gas participants of customer service initiatives, cost recovery and incentive-based programs. Participation for codes and standards is excluded. Curtailable Rates Program participation is included in the industrial sector. Customers may participate in more than one Power Smart program. The 343,381 participants of the Residential Compact Fluorescent Lighting Program during 2004/05-2010/11 are excluded. Figures may not add due to rounding.

Excluding the Residential Compact Fluorescent Program, there were nearly 60,000 participants in Power Smart customer service initiatives and incentive-based programs during 2010/11, and nearly 352,000 participants cumulatively.

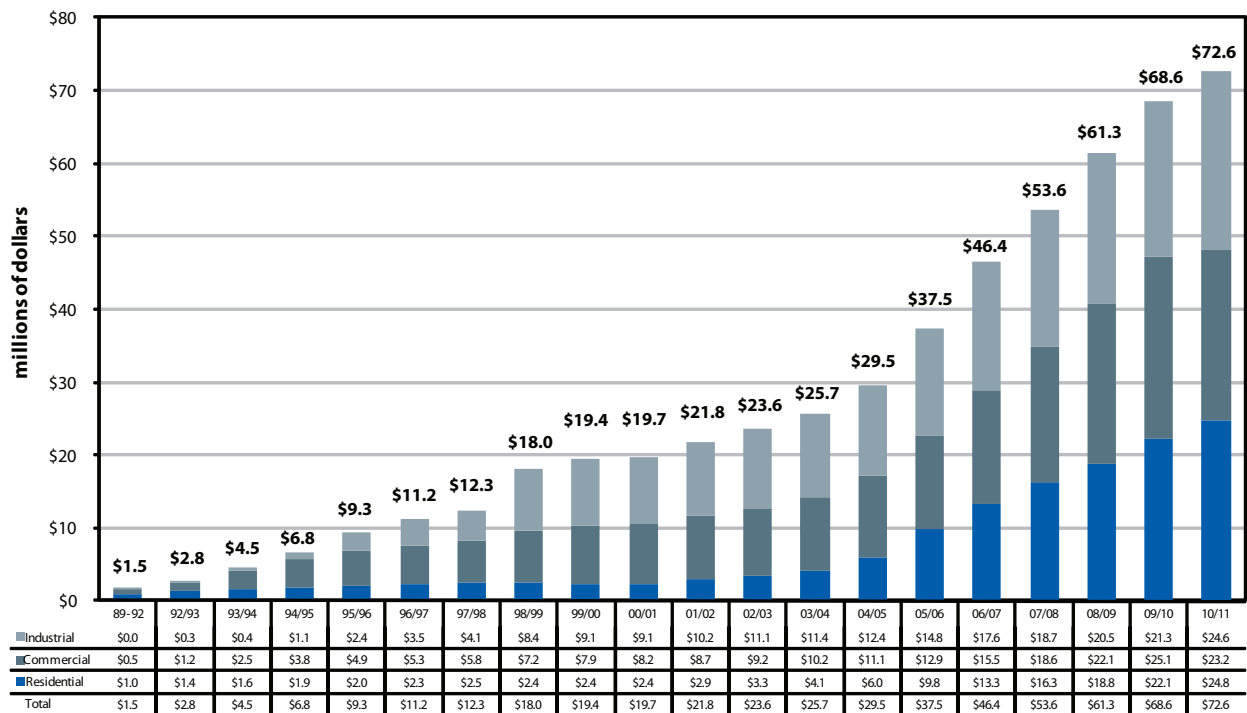
Participation of the Residential Compact Fluorescent

Program has been excluded to provide a better indication of participation trends. The Residential Compact Fluorescent Program was a low-cost option for achieving energy efficiency, and represented 51% of residential Power Smart participation and 49% of overall Power Smart participation.

Customer Bill Reductions

Power Smart customer service initiatives and incentive-based programs saved participating customers nearly \$73 million in energy bills during 2010/11, and \$540 million cumulatively on electricity and natural gas bills to date.

Exhibit. E.12
Combined Electricity & Natural Gas Customer Bill Reduction (2010\$)
 Annual Reductions to Date by Sector



Note: Includes electric and natural gas participants.
 Figures may not add due to rounding.
 Bill reductions exclude savings due to codes & standards.
 Demand savings resulting from the Curtailable Rates Program are excluded from this analysis.
 Natural gas bill reduction includes primary and distribution rates only.

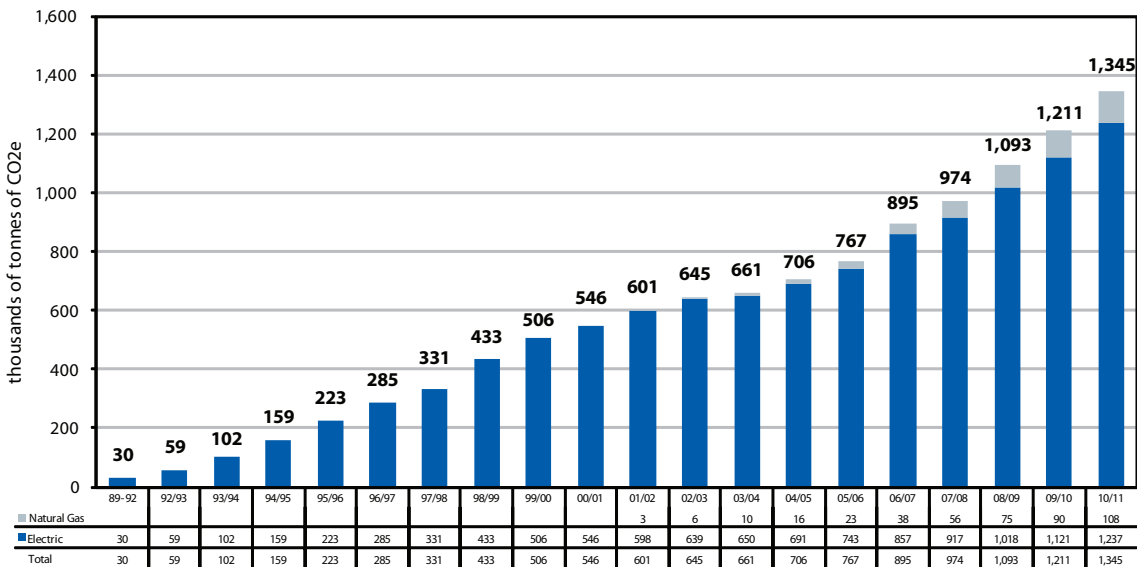
The annual bill reduction for participating customers due to actual and persisting results in 2010/11 of nearly \$73 million is comprised of \$55 million of savings on electricity bills and \$17 million on natural gas bills.

Greenhouse Gas Reductions

The 1,832 GWh savings from electric Power Smart programs and 57 million cubic metres of savings from natural gas Power Smart programs equates to a greenhouse gas emission reduction of approximately 1,345 thousand tonnes of carbon dioxide equivalent emissions. This is comparable to removing approximately 269 thousand vehicles from the road for one full year.

The majority (92%) of the greenhouse gas emission reductions result from electric Power Smart program activity through indirect emission reductions from Manitoba Hydro export sales displacing coal and natural gas fuelled generation outside of Manitoba. The remaining (8%) emission reductions are direct reductions that occur as a result of lower natural gas consumption in Manitoba.

Exhibit E.13
Total Annual Greenhouse Gas Emission Reductions
Due to Electric & Natural Gas Savings
thousands of tonnes of CO₂e



Note: Figures may not add due to rounding.

The Affordable Energy Fund

The Affordable Energy Fund was established in 2006/07 through the Winter Heating Cost Control Act. The purpose of the fund is to provide support for programs and services that achieve specific objectives including encouraging energy efficiency and conservation through programs and services for rural and northern

Manitobans, lower income customers and seniors, and encouraging the use of alternative energy sources such as renewable energy.

Exhibit E.14 outlines the Affordable Energy Fund expenditures in 2010/11 and cumulatively.

Exhibit E.14

Summary of Affordable Energy Fund Expenditures

	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative
	<i>thousands of nominal dollars</i>					
Lower Income Expenditures						
Lower Income/Community Based Initiative	256	219	893	1,672	2,666	5,706
Community Support and Outreach	-	-	35	130	133	299
	256	219	928	1,802	2,799	6,004
Support Expenditures						
Geothermal Support	619	270	92	104	108	1,193
Oil and Propane Heated Residential Homes	-	75	85	31	32	222
Special Projects						
Residential Energy Assessment Service	-	61	241	85	119	506
Oil and Propane Furnace Replacement	-	-	6	36	42	84
Solar Water Heating	-	-	89	119	56	264
Power Smart Residential Loan	-	-	0	130	312	442
	619	406	513	506	669	2,712
Community Energy Development	-	-	-	750	-	750
TOTAL EXPENDITURES	875	625	1,441	3,058	3,468	9,466

Lower Income Furnace Replacement Budget

The Lower Income Furnace Replacement Budget was established during 2007/08 as a result of Public Utilities Board Order 99/07. The purpose of the budget is to establish and administer a Furnace Replacement Program for lower income customers.

In 2010/11 alone, customers installed 445 furnaces and

16 boilers through the Furnace Replacement Program. Cumulatively, 1,233 furnaces and 30 boilers have been installed to the end of 2010/11 as a result of the program.

Exhibit E.15 outlines the Lower Income Natural Gas Furnace Replacement Expenditures between 2008/09 and 2010/11.

Exhibit E.15

Summary of Lower Income Furnace Replacement Budget Expenditures

	2008/09	2009/10	2010/11	Cumulative
	<i>thousands of nominal dollars</i>			
Natural Gas Furnace Replacement	264	815	1,312	2,391
TOTAL EXPENDITURES	264	815	1,312	2,391

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1.0 Introduction

1.1 Background

In 1989, Manitoba Hydro launched the first of many Demand Side Management (DSM) programs, the Outdoor Timer Program. Soon after in 1991, Manitoba Hydro established Power Smart, the customer-oriented brand for all of Manitoba Hydro's DSM programs, initiatives and activities. DSM resource options are assessed and included in Manitoba Hydro's Integrated Resource Planning process. These resource options are developed to provide alternatives to traditional sources of power generation. Power Smart initiatives are justified based on their relative cost compared to traditional generation resource options and the customer service value realized by customers.

Since purchasing Centra Gas in 1999, Manitoba Hydro has been integrating natural gas conservation into the Corporation's overall Power Smart initiative. This report provides an integrated approach to evaluating the results and net energy savings that are reported due to the combined electricity and natural gas energy conservation efforts. In this regard, any increased natural gas consumption (due to interactive effects) resulting from electricity efficiency efforts are captured and netted against natural gas conservation efforts. Interactive effects are not captured prior to the 2002/03 reporting period.

Energy conservation initiatives are designed to reduce customer energy requirements through energy efficient measures (i.e. using less energy to obtain comparable or superior services). Load management activities are designed to reduce energy demands through programs offered to alter the timing of customer demands (e.g. Curtailable Rates Program). Customer self-generation programs are designed to encourage customer onsite generation.

Manitoba Hydro's Power Smart strategy focuses on creating a sustainable market change where energy efficient technologies and practices become the market standard (market transformation). The approach used to create and maintain market transformation varies by product and market segment, and generally involves a combination of the following activities:

- Customer service initiatives & cost recovery programs;
- Incentive-based promotional programs, including:
 - o Efficiency programs,
 - o Customer self-generation programs and
 - o Rate/Load management programs; and
- Efforts to encourage and support implementation of energy efficiency into codes and standards.

The work in each of these different areas supports the overall Power Smart objective as well as other corporate goals, including: providing customers with exceptional value, protecting the environment and capturing additional electricity export sales.

The Power Smart DSM initiative is designed to encourage the efficient use of energy in the commercial, agricultural, residential, institutional and industrial customer sectors. More than thirty-five incentive-based programs and many other customer service initiatives have been offered over the last twenty-two years with impact evaluations of all incentive-based programs prepared regularly.

By evaluating the incentive-based programs, Manitoba Hydro can determine its overall progress in achieving its corporate objectives and can adjust individual program

targets and strategies to reflect market reaction and market changes.

1.2 Power Smart Strategy

Manitoba Hydro's Power Smart strategy is to create a sustainable market change where energy efficient technologies and practices become the market standard (market transformation). To be effective in achieving the desired outcome, the corporation's strategy involves working along multiple tracks including:

- Providing customers with information and services related to energy efficiency;
- Offering cost recovery and incentive-based Power Smart programs designed to create market awareness, knowledge and acceptance of energy efficient technologies and products;
- Working with industry and trade allies to gain support for the Corporation's Power Smart efforts;
- Working with other utilities and government agencies in joint efforts to incorporate energy efficiency in codes, standards and regulations;
- Undertaking communication and marketing efforts focused on promoting Power Smart programs and the Power Smart brand name;
- Leveraging the Power Smart brand name by establishing "Power Smart Design Standards"; and
- Making a sustainable and long-term commitment to the efficient use of energy.

1.3 Power Smart Brand & Perception

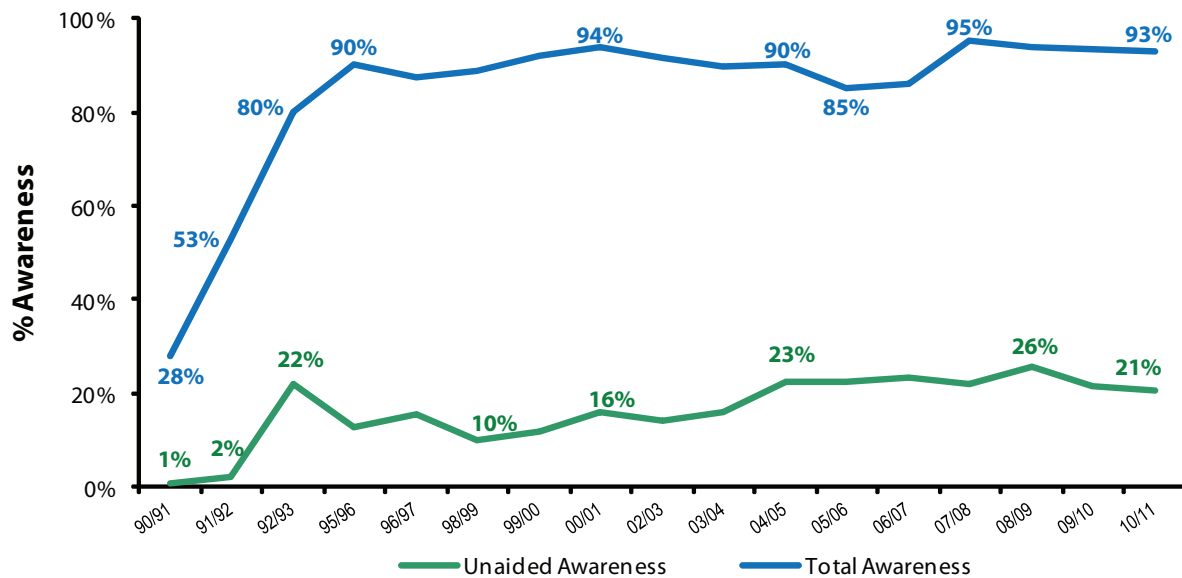
Power Smart is the brand name used by Manitoba Hydro since 1991 to promote its energy efficient programs and services.

Manitoba Hydro continues to successfully maintain the Power Smart brand's profile with 93% of respondents currently saying they recognize the brand name. This includes 21% of respondents who independently recall (unaided recall) the Power Smart brand name, and 76% of respondents who say they recognize the brand name when the Power Smart brand name is identified (aided recall).

The Power Smart campaign, being distinct from the marketing/promotional activities associated with specific Power Smart DSM programs, is a mass communications campaign undertaken to improve public awareness of the Power Smart brand and its association with energy efficiency, low electricity rates and environmental conservation.

Approximately one-third (33%) of respondents said they had participated in a Manitoba Hydro Power Smart program.

**Exhibit 1.3
POWER SMART* Brand Awareness**



Note: POWER SMART* awareness not measured in 93/94, 94/95, 97/98 or 01/02.

Customers continue to strongly agree that the Power Smart brand is most strongly associated with ‘Encouraging customers to be more energy efficient’ (84% provided a 7 or higher out of 10) and ‘Helping customers save money on their energy bills’ (82% provided a 7 or higher out of 10). Approximately three-quarters of respondents agree the Power Smart brand conveys the messages of ‘Conserving the environment’ (73% provided a 7 or higher out of 10), and ensuring ‘There will be electricity available for Manitobans in the

1.4 Purpose of Report

Power Smart is an important component of Manitoba Hydro’s Integrated Power Resource Plan.

Manitoba Hydro’s corporate approved Power Smart DSM targets for electric energy and average winter demand savings at generation are 3,408 GW.h/year and 918 MW by 2024/25, as outlined under the 2010 Power Smart Plan. These targets represent the expected impact of efficiency codes and standards, customer service initiatives and incentive-based program activities.

Manitoba Hydro’s Power Smart program activity is expected to contribute the greatest portion of the savings, with projected energy and demand savings of 2,133 GW.h/year and 626 MW by 2024/25.

Manitoba Hydro’s corporate approved Power Smart DSM target for natural gas savings is 149 million cubic metres by 2024/25, as outlined in the 2010 Power Smart Plan. This target represents the expected impact of incentive-based efficiency program activities, customer service initiatives, interactive effects from electricity programs, as well as savings resulting from efficiency codes and standards. Manitoba Hydro’s Power Smart program activity is expected to contribute the greatest portion of the savings, with projected savings of 106 million cubic metres by 2024/25.

future’ (73% provided a 7 or higher out of 10).

Respondents continue to report a more moderate level of agreement (61% provided a 7 or higher out of 10) with the statement ‘Power Smart programs contribute to Manitobans paying among the lowest prices for electricity in North America.’

While this report highlights all activities and results from the overall Power Smart portfolio, the emphasis will be on incentive-based program activities. Annual results for 2010/11 will be measured against planned savings of the most recent approved plan, the 2010 Power Smart Plan.

More specifically, this report will:

- Report the energy and demand savings achieved by incentive-based Power Smart programs;
- Report the cost-effectiveness of incentive-based Power Smart programs; and
- Report the utility costs associated with all Power Smart programs and initiatives.

Refer to APPENDIX A - ‘Sources of Evaluation and Planning Estimates’ for details of the information considered when preparing program evaluation results and program plan estimates. Refer to APPENDIX B - ‘Explanation of Benefit-Cost Ratios used in DSM Economic Tests’ for formulas used to determine cost-effectiveness.

2.0 Power Smart Portfolio Review

Manitoba Hydro's Power Smart efforts include customer service initiatives, cost recovery programs, energy efficient codes and standards and incentive-based

Power Smart programs. The following section includes a synopsis of the current Power Smart initiatives.

2.1 Power Smart Customer Service Initiatives & Cost Recovery Programs

One of the primary drivers in Manitoba Hydro's Power Smart activities involves providing value-added customer service. This is achieved by offering customers advice, financing services, access to energy efficiency information and providing energy efficiency solutions. Through these efforts, Manitoba residents and businesses are provided with a number of benefits including:

- Enabling customers to improve the comfort and productivity of their work and home environments while reducing their energy bills;
- Lower electricity rates;
- Assisting businesses to become more competitive in national and international markets; and
- Creating employment opportunities within Manitoba for manufacturers, distributors, retailers, trade allies and installers of energy efficient products and services.

2.1.1 Launch Date of Customer Service Initiatives & Cost Recovery Programs

Exhibit 2.1.1-A identifies the launch dates of all current and discontinued customer service initiatives and cost recovery programs.

Exhibit 2.1.1-A

Launch Date of Customer Service Initiatives & Cost Recovery Programs

INITIATIVE	LAUNCH DATE
RESIDENTIAL	
Home Comfort & Energy Savings Program	February, 2001
ecoENERGY Program [^]	March, 2001
Wisdom in Saving Energy (WISE) Home Program	June, 2001
R-2000 Home Program component of the New Home Program [*]	February, 2002
Residential Earth Power Program	April, 2002
Energy Saver Presentations ^{^^}	January, 2002
New Home Program Workshop	January, 2002
Solar Hot Water Heating	November, 2008
COMMERCIAL	
Religious Buildings Initiative	May, 2001
Power Smart Recreation Facilities Survey	May, 1998
Power Smart Design Standards	September, 2002
DISCONTINUED/COMPLETED PROGRAMS	
Power Smart Energy Manager - Pilot	September, 2001

[^] Formerly called EnerGuide.

^{^^} Formerly called Home Energy Saver Workshops.

^{*} In 2004/05, the R-2000 Home Program was grouped under the New Home Program.

Exhibit 2.1.1-B provides an overview of the annual and total number of participants for select customer service initiatives and cost recovery programs.

Refer to APPENDIX C - 'Total Power Smart Participation' for a detailed list of historical participation.

Exhibit 2.1.1-B

Customer Service Initiatives & Cost Recovery Program Participation

INITIATIVE	2010/11	Cumulative
	<i>Number of Participants</i>	
RESIDENTIAL		
Home Comfort & Energy Savings Program		
Power Smart Residential Loan*	5,262	57,937
Mail In/On-Line Energy Assessments	263	3,595
	5,525	61,532
ecoENERGY Program^	3,428	41,403
Wisdom in Saving Energy (WISE) Home Program	460	5,391
Energy Saver Presentations^^	0	3,956
Residential Earth Power Loan	60	1,141
New Home Program Workshop	0	854
R-2000 Home Program component of the New Home Program^^^	-	63
Solar Hot Water Heating	18	36
	9,491	114,376
COMMERCIAL		
Religious Buildings Initiative	5	228
Power Smart Recreation Facilities Survey	2	68
	7	296
DISCONTINUED/COMPLETED PROGRAMS		
Power Smart Energy Manager - Pilot	-	38
Residential Earth Power Consumer Workshops**	-	688
	-	726
TOTAL	9,498	115,398

* Participation includes approved loans, while energy savings is measured by completed projects.

** Includes residential and commercial participants.

^ Formerly called EnerGuide. Participation includes 'D' & 'E' audits.

^^ Formerly called Home Energy Saver Workshops.

^^^ In 2004/05, the R-2000 Home Program was grouped under the New Home Program.

Note: This table includes electric and natural gas Power Smart participants. Customers may participate in more than one Power Smart program.

2.1.2 Customer Service Initiative & Cost Recovery Program Activity

Customer service initiatives and cost recovery programs provide numerous benefits to Manitobans. Depending on the nature of the program, savings resulting from specific programs will be quantified to the extent that these savings can be reasonably determined. Estimated savings are generally calculated using engineering

estimates as well as sales and market data provided by program specialists. Regular assessments include a qualitative evaluation of the benefits, with service levels adjusted accordingly. The following outlines the many benefits of Power Smart customer service initiatives and cost recovery programs.

Home Comfort & Energy Savings Program

The Home Comfort & Energy Savings Program encourages homeowners to make energy efficient renovations to increase comfort and reduce home heating bills. The following services are offered under this customer service program:

- Customers can email a Power Smart Energy Expert with energy-related questions;
- The Home Energy Calculator is a simple online check sheet that enables homeowners to compare energy saving projects previously undertaken and make decisions regarding future projects;
- The Home Comfort & Energy Evaluation Guide can be completed as a mail-in or online survey. This customized report includes easy-to-read graphs and a Power Smart target comparing the current energy consumption of the customer's home with

a home upgraded to the recommended Power Smart measures;

- Detailed brochures and renovation booklets for selecting and installing Power Smart measures, guide the homeowner through the renovation process; and
- Power Smart Residential Loans of up to \$7,500 over a term of up to five years, and \$5,500 for furnaces over a term of up to fifteen years (interest rates are fixed for the first five years and adjusted to market rates in the remaining years).

Since its inception, the Power Smart Residential Loan Program has had nearly 58,000 participants, borrowing more than \$232 million in total. To date, \$64 million in loans remain outstanding. Exhibit 2.1.2-A displays participation under the Power Smart Loan Program, and Exhibit 2.1.2-A-1 summarizes finalized loan amounts.

Exhibit 2.1.2-A
PowerSmart Residential Loan Program
Cumulative Number of Participants

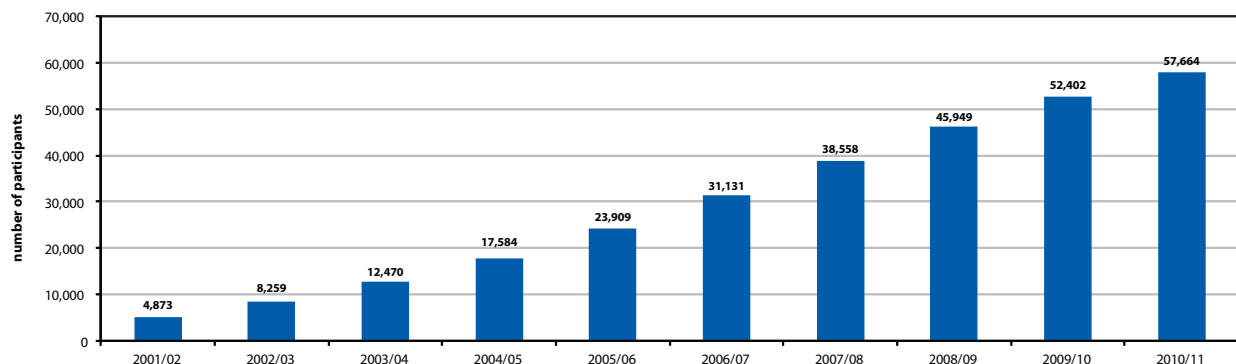
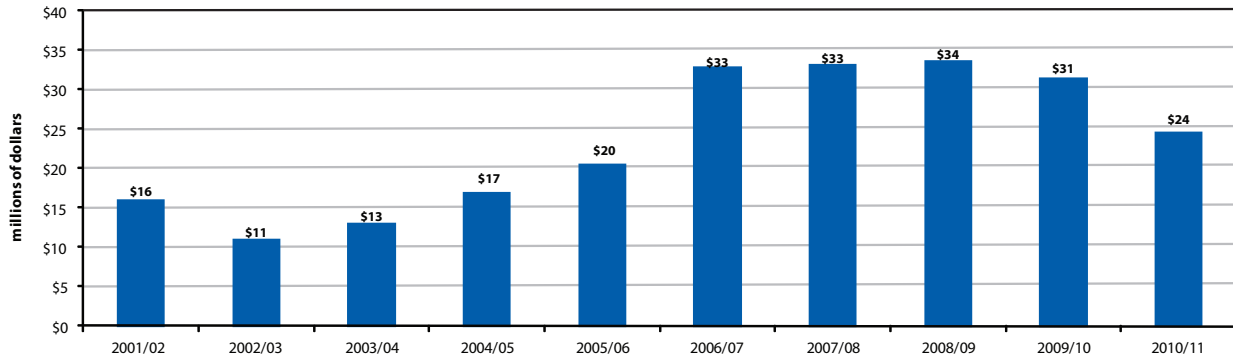


Exhibit 2.1.2- A-1
PowerSmart Residential Loan Program
Finalized Loan Amounts
millions of nominal dollars

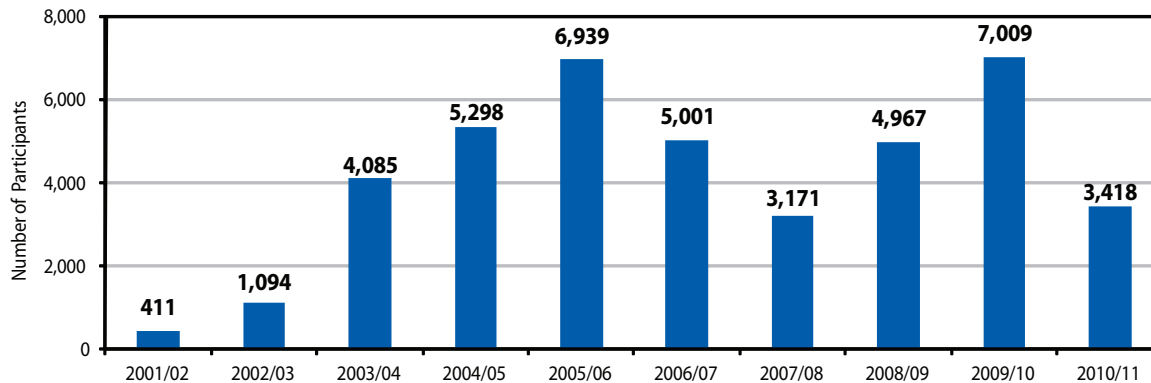


ecoENERGY Program (formerly EnerGuide)

Manitoba Hydro continues to market Federal Government energy evaluation programs. In March 2010, the Federal Government announced the ecoENERGY program across Canada would no longer be available to new participants, eliminating much of the forecasted program activity. Homeowners who had a pre-retrofit energy evaluation prior to April 1, 2010

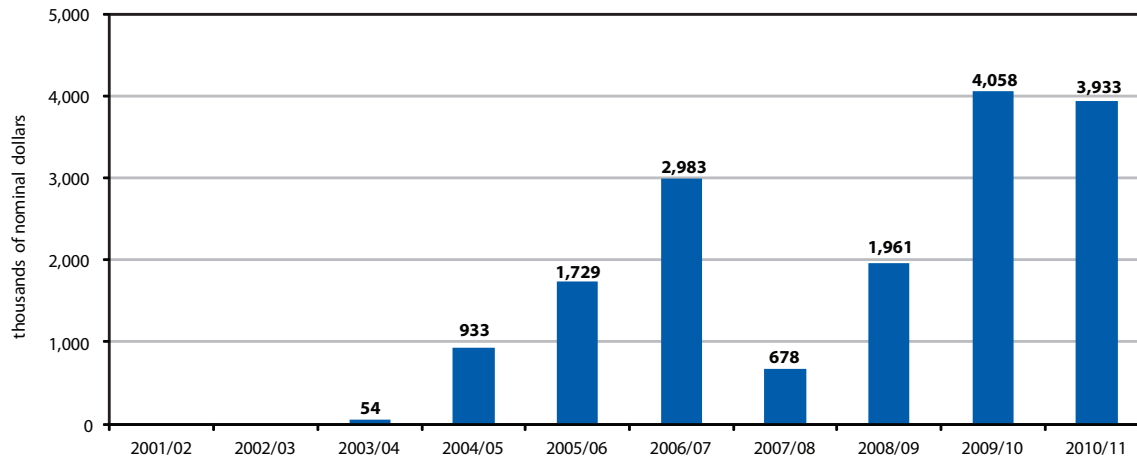
would still be eligible for remaining ecoENERGY grants, provided the recommended energy improvements to their home were completed, and a second post-retrofit energy evaluation was performed within 18 months of the pre-retrofit evaluation, or by March 31, 2011. The grant amounts were based on qualifying energy saving improvements, with a maximum total grant amount of \$5,000 per residence (grants subject to availability).

Exhibit 2.1.2 - B
ecoENERGY Program
 Number of D & E Participants



Note: Activity prior to 2007/08 was under the former EnerGuide Program.

Exhibit 2.1.2 -B-1
ecoENERGY Program Federal Grants Paid to Manitobans
(thousands of nominal dollars)



Note: Activity prior to 2007/08 was under the former EnerGuide Program.

As seen above, Federal grants paid to Manitobans more than doubled from 2008/09 to over \$4 million in 2009/10, then remained quite constant into 2010/11. The fee for an ecoENERGY evaluation is \$180 + GST for the pre-retrofit ‘D’ evaluation, and \$125 + GST for the post-retrofit ‘E’ evaluation.

The ‘E’ evaluation fee was reduced to \$25 + GST if it was estimated the homeowner would receive an ecoENERGY grant of \$400 or more.

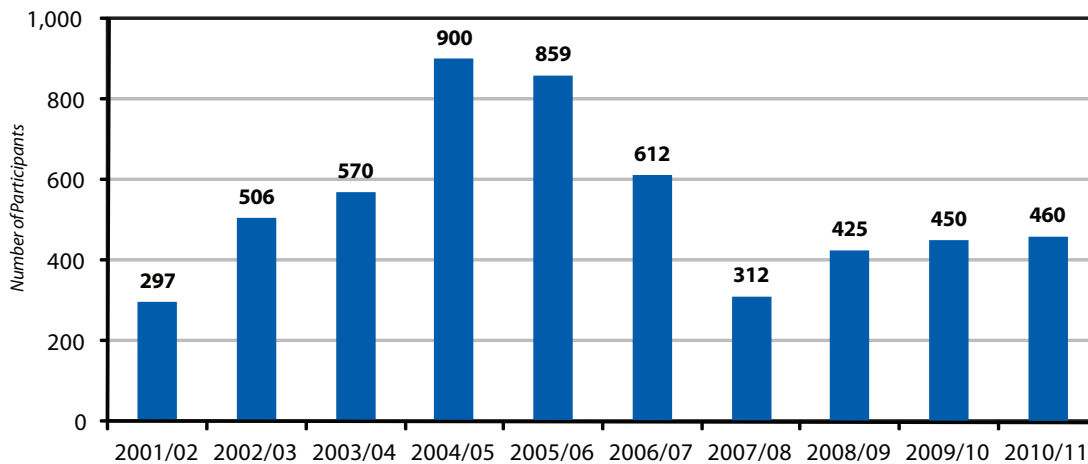
The fees for both evaluations were equally subsidized by Manitoba Hydro and the Provincial Government. This program ended March 31, 2011.

Wisdom in Saving Energy (W.I.S.E.) “Seniors Helping Seniors” Home Program

The W.I.S.E. Home Program operated in partnership with the Manitoba Society of Seniors. The program was designed to assist senior homeowners to identify and implement energy saving measures in their homes. The program was planned around the “Seniors Helping Seniors” concept and offered seniors an opportunity to volunteer and receive training from Manitoba Hydro energy experts in order to become qualified in-home energy advisors. The volunteer energy advisors visited homeowners and collected information about their

homes, installed energy saving devices and offered energy saving tips and options to help senior customers save on energy consumption. The program was very well received by the community, as displayed by a consistently high mean satisfaction rating during the ten years the program was offered. A total of 5,391 Manitoba seniors participated in the program. The following graph presents the number of participants in the W.I.S.E. Home Program:

Exhibit 2.1.2 -C
W.I.S.E. Home Program
Number of Participants



Residential Earth Power Program

Manitoba continues to be a leader in the geothermal industry with over 6,000 residential installations to date.

The Residential Earth Power Program's primary objective is to maximize the adoption of geothermal heat pump technology to offset the use of conventional electric heating systems.

To facilitate this objective, the Residential Earth Power Program has developed a comprehensive strategy to assist efforts of local stakeholders in developing a sustainable provincial geothermal industry. Since its launch in 2002, the program has focused efforts in mitigating three key market barriers which include:

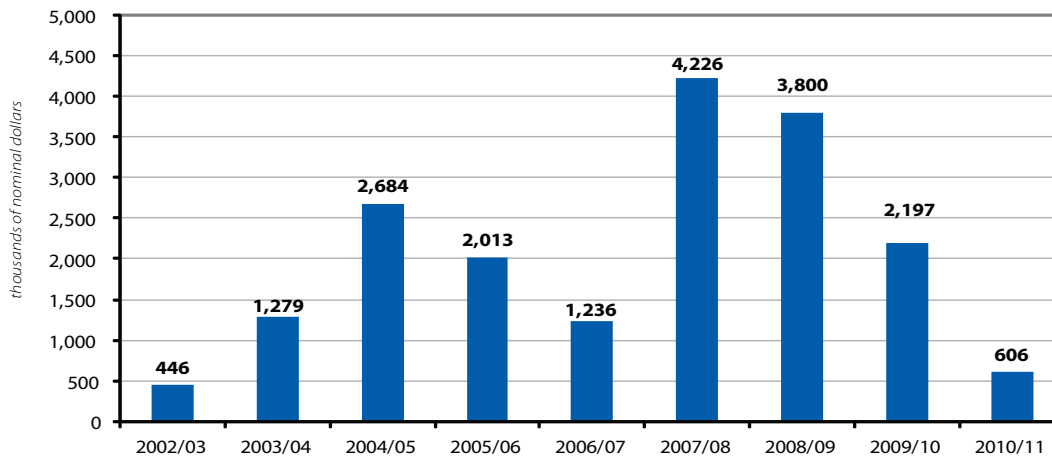
- Consumer awareness;
- Underdeveloped industry infrastructure; and
- High capital cost.

In 2002, the Residential Earth Power Program introduced convenient financing through the Residential Earth Power Loan, a vital component of the program.

The original terms of the loan offered financing up to \$15,000 over a term up to fifteen years at a fixed interest rate of 6.5%. In April 2007, changes were made to the loan terms which increased the amount of financing available to \$20,000 and lowered the interest rate to 4.9% for the first five years of a customer's loan. The interest rate on the balance of the loan term will be set at prevailing interest rates. The lower initial term interest rate is subsidized by the Affordable Energy Fund.

Manitoba Hydro's Residential Earth Power Loan has continued to be an effective tool in facilitating residential geothermal installations. In 2010/11, a total of 53 customers financed their geothermal systems through the Residential Earth Power Loan. This brings the total number of loan participants to 1,134 since its inception in 2002/03; equivalent to \$18.9 million in financing. Furthermore, residential geothermal market activity was strong due to the Provincial Green Energy Tax Credit and the \$4,375 Federal ecoENERGY grant.

Exhibit 2.1.2 -D
Residential Earth Power Loan
Annual Loan Amounts
thousands of nominal dollars



Total residential geothermal installations in Manitoba have continued to decrease over the past two years. The recession experienced in 2008 has led to lower disposable income, increased consumer reluctance to take on more debt and a higher price premium on geothermal

installations. All of which have had a dramatic effect on sales throughout Canada. Other factors contributing to the decrease in geothermal installations include falling natural gas prices due to the recession in the United States, as well as the emergence of shale gas exploration.

Solar Water Heating Program

Manitoba Hydro partnered with Natural Resources Canada to offer a \$1,200 rebate to homeowners who purchase and install a solar water heating system. Natural Resources Canada will cover the \$1,200 rebate up to \$292,000 and Manitoba Hydro agreed to contribute \$350,000 in program administration, promotion,

advertising and monitoring.

An additional \$1,250 rebate may be available to the homeowner if they participate in Natural Resource Canada's ecoENERGY In-Home Energy Evaluation program.

Power Smart Recreation Facilities Survey

The Power Smart Recreation Facilities Survey was created to help ice arenas and curling rinks reduce their operating costs by providing operators with an understanding of the energy use and potential energy saving measures within the facility. Technical staff at Manitoba Hydro review comprehensive surveys completed by facility operators and an evaluation report is prepared. The report compares the energy use of the facility with similar facilities in Manitoba and provides a

list of possible energy saving opportunities. In October 2002, a guide called *Saving Money Through Energy Efficiency - Guidelines for Operators of Manitoba's Rinks and Arenas* was developed to assist rink operators to operate their facilities more efficiently, and to present practical ideas for saving money by reducing energy use. This guide has been updated and is now called *Energy Efficiency Guide for Ice Arenas and Curling Rinks*.

Religious Buildings Initiative

The Religious Buildings Initiative was designed to assist religious organizations in finding ways to make their buildings more energy efficient. The initiative offers a benchmark audit and a loan of 8.5% to assist religious facilities in carrying out efficiency improvements. The benchmark audit report outlines how energy is being used in the building and indicates potential energy saving measures, which will reduce energy consumption.

Power Smart Design Standards

Manitoba Hydro developed design standards that new or renovated buildings must meet or exceed to achieve the Power Smart designation. The standards take the form of efficiency requirements, prescriptive measures by building type, eligible products and systems and recommended good practices. The design standards were originally created to match the requirements of the

As part of the Religious Buildings Initiative, a guide called *Energy Efficiency Guide for Religious Buildings* was created. This energy and water efficiency guide assists people involved in the operation and maintenance of religious buildings to develop an action plan and take steps toward improving the efficiency of their buildings.

former Federal Commercial Building Incentive Program (CBIP) but have since evolved to become an industry guideline for building energy efficiency in Manitoba and are now listed as a requirement in The Green Building Policy for Government of Manitoba Funded Projects. In 2010/11, 21 projects received a Power Smart designation.

2.2 Energy Efficient Codes & Standards

The most effective and permanent form of market transformation for energy efficient technologies and practices is the adoption of energy efficient codes and standards. However, the process of achieving these changes can be complex when faced with lack of market acceptance. These changes impact building design and construction, as well as industry manufacturing processes, and therefore often do not receive strong industry support.

Manitoba Hydro's strategy to affect change in codes

and standards involves being an aggressive and active participant and in many cases, a driving force on a number of provincial and national energy efficiency codes and standards committees (e.g. Manitoba Hydro representatives often chair such committees). The focus of Manitoba Hydro's efforts on these committees is towards developing new energy efficient technologies, developing energy efficiency codes and standards and facilitating market acceptance of new technologies and building design practices.

2.3 Power Smart Incentive-Based Programs

Power Smart incentive-based programs are designed in consideration of specific market parameters and characteristics impacting market acceptance of the targeted energy efficient technology or product.

Examples of such factors are industry/customer

awareness and appetite for acceptance, availability of competing products, state of product lifecycles, cost barriers, training barriers, state of existing codes and standards, etc.

2.3.1 Launch Date & Participation of Incentive-Based Power Smart Programs

Exhibit 2.3.1-A identifies the launch years of current and past Power Smart incentive-based programs.

Exhibit 2.3.1-B provides an overview of the annual and total amount of participants for incentive-based programs.

Refer to APPENDIX C - 'Total Power Smart Participation' for a detailed list of historical participation.

For a description of current incentive-based Power Smart programs, see list in section 2.3.2. APPENDIX D provides a synopsis of discontinued Power Smart programs.

Exhibit 2.3.1-A

Launch Date of Incentive-Based Programs

PROGRAM	YEAR LAUNCHED
RESIDENTIAL	
New Home	February, 2004
Home Insulation	May, 2004
Compact Fluorescent Lighting	September, 2004
Energy Efficient Light Fixtures	October, 2006
Lower Income Energy Efficiency	December, 2007
Affordable Energy Fund - Propane & Oil Furnace/Boiler	May, 2009
Water & Energy Saver	September, 2010
COMMERCIAL	
Commercial Lighting	April, 1992
Internal Retrofit	July, 1995
Commercial Custom Measures	December, 1995
Commercial Building Envelope	December, 1995
Commercial Earth Power	December, 1995
City of Winnipeg Power Smart Agreement	September, 2002
Commercial HVAC	September, 2003
Commercial Building Optimization	April, 2006
Commercial Refrigeration	April, 2006
Commercial Kitchen Appliances	January, 2008
Commercial Network Energy Management	May, 2008
Commercial Clothes Washers	July, 2008
Power Smart Energy Manager	November, 2008
Power Smart Shops	February, 2009
Commercial New Buildings	April, 2009
Commercial CO2 Sensors	April, 2009
INDUSTRIAL	
Performance Optimization	June, 1993
Natural Gas Optimization	September, 2006
CUSTOMER SELF-GENERATION	
Bioenergy Optimization	March, 2006
RATE/LOAD MANAGEMENT	
Curtable Rates	November, 1993
DISCONTINUED/COMPLETED	
RESIDENTIAL DISCONTINUED/COMPLETED	
Outdoor Timer	October, 1989
Refrigerator/Freezer Buy-Back Pilot	1991/92
Residential Showerhead Pilot	1991/92
EE Water Savings Measures Component of the 'No Worry Plan'	November, 1996
EE Water Tank Measures Component of the 'No Worry Plan'	November, 1996
Seasonal LED Lighting	November, 2005
Programmable Thermostat Pilot	October, 2006
High Efficiency Furnace /Boiler	November, 2005
Residential Appliances	June, 2006
COMMERCIAL DISCONTINUED/COMPLETED	
Roadway Lighting	April, 1991
Sentinel Lighting Conversion	April, 1991
Commercial Showerhead Pilot	1991/92
Infrared Heat Lamps	1991/92
Agricultural Demand Controller	July, 1992
Livestock Waterer	October, 1994
Commercial Construction - Air Barrier Component	December, 1995
Commercial Construction - Air Conditioning Component	December, 1995
Commercial Parking Lot Controllers	December, 1995
Agricultural Heat Pads	April, 1998
Commercial Rinse & Save	July, 2006
INDUSTRIAL DISCONTINUED/COMPLETED	
High Efficiency Motor	September, 1991

Exhibit 2.3.1-B

Incentive-Based Power Smart Program Participation

PROGRAM	2010/11	Cumulative
	<i>Number of Participants</i>	
RESIDENTIAL		
Compact Fluorescent Lighting*	75,821	343,381
Water & Energy Saver	38,448	38,448
Home Insulation	3,656	24,967
Energy Efficient Light Fixtures	3,351	10,595
Lower Income Energy Efficiency	2,056	3,054
New Home	230	1,238
	123,562	421,683
COMMERCIAL		
Commercial Lighting	991	10,821
Commercial Building Envelope	453	1,419
Power Smart Shops	378	708
Commercial HVAC/ CO2 Sensors	89	538
Internal Retrofit	39	1,224
Commercial Clothes Washers	37	206
Commercial Refrigeration	36	133
Commercial Earth Power	19	96
Commercial Kitchen Appliances	16	64
Commercial Custom Measures	8	29
Commercial Building Optimization	4	7
City of Winnipeg Power Smart Agreement	2	317
Commercial Network Energy Manager	2	8
Power Smart Energy Manager	-	-
Commercial New Buildings	-	-
	2,074	15,570
INDUSTRIAL		
Performance Optimization Program	72	551
Natural Gas Optimization Program	14	48
	86	599
DISCONTINUED/COMPLETED		
	175	112,555
EFFICIENCY PROGRAMS SUBTOTAL		
	125,897	550,407
CUSTOMER SELF-GENERATION		
Bioenergy Optimization**	1	5
	1	5
RATE/LOAD MANAGEMENT:		
Curtable Rates**	3	5
	3	5
TOTAL		
	125,901	579,983

* Participation is defined as one household.

** Participation represents the number of customers who participate each year. The cumulative number represents the actual number of unique customers who have participated.

Notes: This table includes electric and natural gas Power Smart participants. Customers may participate in more than one Power Smart program and are counted multiple times cumulatively, except for Bioenergy Optimization and Curtable Rates.

Participation is measured by number of completed projects and does not include market transformation.

2.3.2 Residential Programs

New Home Program

Promotes and encourages energy efficiency in residential new construction, using measures such as lighting, insulation, ventilation, water technologies and improved building envelope. Customers can qualify by building to the Power Smart Gold, Silver or R-2000 standard. Manitoba Hydro became the delivery agent of Natural Resources Canada's R-2000 Program in February 2002.

Home Insulation Program

Information and financial incentives are offered to encourage owners of existing homes to upgrade their insulation to Power Smart levels.

Compact Fluorescent Lighting Program

Financial incentives are provided to encourage residential customers and property managers of multi-unit residential buildings to install energy efficient compact fluorescent light bulbs.

Energy Efficient Light Fixtures Program

The Energy Efficient Light Fixtures Program provides financial incentives to residential customers and property managers of multi-unit residential buildings to encourage the installation of ENERGY STAR® qualified light fixtures, dimmer switches and LED night lights in homes.

Water & Energy Saver Program

The Water and Energy Saver Program offers free Water & Energy Saver kits to customers. Each kit contains a low-flow showerhead, low-flow faucet aerators, water heater pipe wrap, water heater temperature gauge and refrigerator/freezer thermometer.

Lower Income Energy Efficiency Program (LIEEP)

The Lower Income Energy Efficiency program is designed to bring Power Smart and energy efficient measures to qualifying lower income Manitoba households. The program leverages Manitoba Hydro Power Smart programs, the Affordable Energy Fund, the Federal Government ecoENERGY Program (until the program ended in March 2011), provincial government programs and existing community-based infrastructures. Energy efficiency measures include pre-and post in-home energy evaluations, installation of basic energy efficiency items such as CFLs and low-flow showerheads, insulation upgrades and natural gas furnace upgrades.

2.3.3 Commercial Programs

Commercial Building Optimization Program

The Commercial Building Optimization Program encourages commercial customers with existing buildings to use an investigation process known as retro-commissioning to help return their buildings to their design intent. The goal is to identify operational energy conservation opportunities with short payback periods.

Commercial New Buildings Program

The New Buildings Program provides technical guidance and financial incentives for designing, constructing and operating new, energy efficient buildings in Manitoba.

Internal Retrofit Program

Energy efficiency in Manitoba Hydro buildings is encouraged by retrofitting existing and constructing new buildings to Power Smart levels.

Commercial Building Envelope Program

The Building Envelope Program encourages building owners to incorporate window systems and/or insulation that meets Power Smart levels into their renovation or new building plans and helps to reduce air leakage that leads to heat loss.

Commercial Lighting Program

This program encourages commercial customers to install cost-effective energy efficient lighting systems. Manitoba Hydro also works with lighting distributors, installers, contractors and manufacturers to assist customers in saving electricity.

Commercial HVAC Program

The HVAC Program encourages the use of higher efficiency heating and cooling systems in commercial buildings such as high efficiency furnaces, near condensing and condensing boilers, variable speed drives, CO₂ and energy efficient water-cooled chillers.

Commercial Custom Measures Program

The Custom Measures Program encourages commercial customers who are renovating, undergoing plant expansion or building new facilities to improve system performance by installing or upgrading technologies such as direct digital controllers, variable frequency drives and heat recovery ventilation systems. The program is designed for energy efficient projects that are not included in any of the existing Power Smart programs.

Commercial Earth Power Program

This program provides information and financial incentives to customers who install a geothermal heat pump to offset a conventional electric heating system in either new construction or existing commercial buildings.

Commercial Refrigeration Program

This program encourages retail stores and restaurants to install energy efficient refrigeration equipment for their walk-ins, display cases and mechanical rooms to reduce energy consumption and create a more comfortable environment for their customers.

City of Winnipeg Power Smart Agreement

The City of Winnipeg Power Smart Agreement encourages, promotes and implements energy saving measures to improve the efficiency of city-owned facilities. The Power Smart Agreement encompasses electricity, natural gas and water saving measures for both new construction and renovation projects.

Commercial Kitchen Appliances Program

The Commercial Kitchen Appliances Program encourages customers to upgrade to ENERGY STAR® qualified steamers and fryers.

Commercial Clothes Washers Program

The Commercial Clothes Washers Program encourages customers to install energy efficient clothes washers at their business or facility.

Power Smart Energy Manger Program

The Power Smart Energy Manager Program provides information, training and support for Manitoba school divisions to hire dedicated Energy Managers.

Commercial Network Energy Manger Program

The Network Energy Management Program offers commercial customers a rebate when installing network management software. The software shuts down PCs when they are inactive while still allowing network administrators to perform regular maintenance tasks, such as IT upgrades and installations.

Power Smart Shops Program

The Power Smart Shops Program promotes energy efficiency to small independent commercial customers. The program encourages business customers to fully convert their buildings to a Power Smart Shop efficiency level by providing incentives, expertise, competitive pricing, and through the installation of energy efficient products.

2.3.4 Industrial Programs

Performance Optimization Program

The Performance Optimization Program encourages industrial and large commercial customers to study and implement energy efficiency measures in their electro-technology processes and motor-drive systems.

Natural Gas Optimization Program

This program provides industrial and large commercial customers with the technical support and financial incentives necessary to identify, investigate and implement systematic efficiency improvements in the natural gas fired systems throughout their facilities.

2.3.5 Rate/Load Management Programs

Curtable Rates Program

Large industrial customers are provided with monetary incentives by way of a monthly credit on their electricity bill in exchange for customers having electrical load available for curtailment if called upon by Manitoba Hydro.

2.3.6 Customer Self-Generation Programs

Bioenergy Optimization Program

This program encourages industrial customers to install, operate and maintain generation equipment at their site for displacing their internal load.

3.0 Power Smart Success Stories

Manitoba Hydro is an ENERGY STAR

Manitoba Hydro was named ENERGY STAR Participant of the Year by Natural Resources Canada at the 2010 ENERGY STAR Market Transformation Awards held in June 2010. Manitoba Hydro's Power Smart Program was

recognized as a national leader for transforming the market through its ongoing commitment to promote energy efficient practices and products, including those offered under the ENERGY STAR label.

Manitoba Awarded A+ for Energy Efficiency

In August 2010, the Canadian Energy Efficiency Alliance (CEEA) awarded Manitoba an A+ on the 2009 National Energy Efficiency Report Card. This was Manitoba's fourth consecutive first place rating. Manitoba's A+ rating was based the completion of a number of activities:

- Launched a process to increase energy efficiency requirements for new construction covered by the Manitoba Building Code;

- Started setting mandatory requirements for the energy efficiency of products;
- Introduced, through Manitoba Hydro, several new Power Smart initiatives; and
- Implemented Canada's strongest policy for ensuring a high level of energy efficiency in publicly-funded new construction and renovation projects.

First Nations Power Smart Program

Since its launch in 2009, the First Nations Power Smart Program has assisted close to forty First Nations communities with energy efficient retrofits, including insulation upgrades and basic energy efficient measures. This includes two diesel-powered First Nations communities.

Manitoba Hydro not only supplies the materials to these First Nations communities, it also provides training to community members on proper installation techniques, allowing them to complete the work themselves. Feedback has been so positive that many communities are beginning work on their second and third phases of upgrades.

Home Insulation Program Rebate Milestone

During the 2010/11 fiscal year, the Home Insulation Program rebated its 25,000th participant. Combined, Home Insulation Program participants save \$5,000,000 annually on their energy bills. Since 2004/05, the Home Insulation Program has saved 34 GW.h of electricity, 16 MW of demand and 9 million m³ of natural gas

annually. Over the life of the program, greenhouse gas emissions have been reduced by more than 50,000 tonnes.

M.R. Lopes Investments Ltd. (Stadacona Place)

Stadacona Plaza, built in 1965, was originally comprised of one-bedroom apartments. It was recently renovated to include two-bedroom units, with many measures installed to make the building more energy efficient and environmentally friendly. Measures that were installed include energy efficient lighting, appliances and windows; parking lot controllers; low-flow showerheads and low-flush toilets; as well as improved levels of insulation.

Stadacona Plaza received \$32,250 in Power Smart incentives, and can expect more than \$13,000 in bill

reductions each year. They are expected to save 194,647 kW.h of energy and 38 KW of demand each year, resulting in 150 tonnes of CO₂e reductions annually. They were awarded the 2010 CMHC Housing Award for Best Practices in Affordable Housing. As well, the project was nominated for the 2011 Manitoba Excellence in Sustainability Award - Action on Climate Change, Air Quality and Energy Efficiency.

Host of Biennial National Building Performance Simulation Conference

In May 2010, Manitoba Hydro hosted eSim's biennial national conference of the International Building Performance Simulation Association of Canada. eSIM is widely recognized as the leading conference for strengthening the building performance simulation community, promoting sustainable design practices and showcasing various building simulation software and modeling methods.

Over eighty professionals, academics and students attended, representing Canada, the U.S., Europe, Asia

and Africa. Being held locally allowed for a dramatic increase in local attendees. This boost in local participation further develops local industry expertise in this field.

Hosting the event at the state-of-the-art Manitoba Hydro Place allowed for real life demonstration of the value and success of design best practices.

Global Advertising & Marketing Award Winner

In 2010, Manitoba Hydro's Power Smart programs won a total of fifteen advertising and marketing awards in local and international competitions.

The Utility Communicators International (UCI) Better Communications Competition presented Manitoba Hydro with seven awards for various marketing campaigns including one first-place award, three second-place awards and three third-place awards for pieces

ranging from print ads, direct mail, outdoor creative and customer videos.

Manitoba Hydro was also recognized for television advertising, winning seven awards from The Television Bureau of Canada, and a first-place award for best TV or Cinema Single from the Advertising Association of Winnipeg (AAW) Signature Awards.

3.1 Power Smart Initiatives Launched in 2010/11

Water & Energy Saver Program

October 9, 2010 - Water heating is the second largest energy user in a home next to space heating. The Power Smart Water & Energy Saver Program provides energy efficient plumbing fixtures and other low cost measures to residential Manitoba Hydro customers to assist them in reducing energy consumption as it relates to water

heating. Eligible residential customers can receive a no charge Water and Energy Saver Kit mailed directly to their home. Tenants can also benefit from the program via their property managers and landlords who can participate through the Multi-Unit Residential Bulk component of the program.

First Nations Power Smart Program

April 22, 2010 - Manitoba Hydro has announced the First Nations Power Smart Program through which First Nations communities can improve the energy efficiency and comfort of their homes.

Program details are as follows:

- Each First Nations community is matched with a Manitoba Hydro energy efficiency specialist to select qualifying homes and recommend energy efficient measures to install
- Measures include insulation and basic energy efficiency upgrades such as compact fluorescent

light bulbs, insulated pipe wrap, draft-proofing, low-flow showerheads and faucet aerators.

- Community members are trained to conduct the upgrades and deliver the Power Smart program.
- On request, energy saving seminars can be arranged to provide community members with information and tips on what they can do to make their community more energy efficient.

4.0 Market Results

In the past, the success of Manitoba Hydro's Power Smart initiative was evaluated on DSM incentive-based program activity alone. However, the true impact of Power Smart program also includes the impact of the program on the market as a whole - market transformation. However, market transformation is more difficult to measure. Manitoba Hydro has made significant in-roads in developing program-specific

methodologies for measuring its impact. Wherever possible, Manitoba Hydro has attempted to obtain sales/ technology-specific data to calculate a program's true impact. In some instances, qualitative information is used to determine a program's impact on the market. Manitoba Hydro plans on continuing to further quantify and report on the influence of market transformation within the Manitoba marketplace.

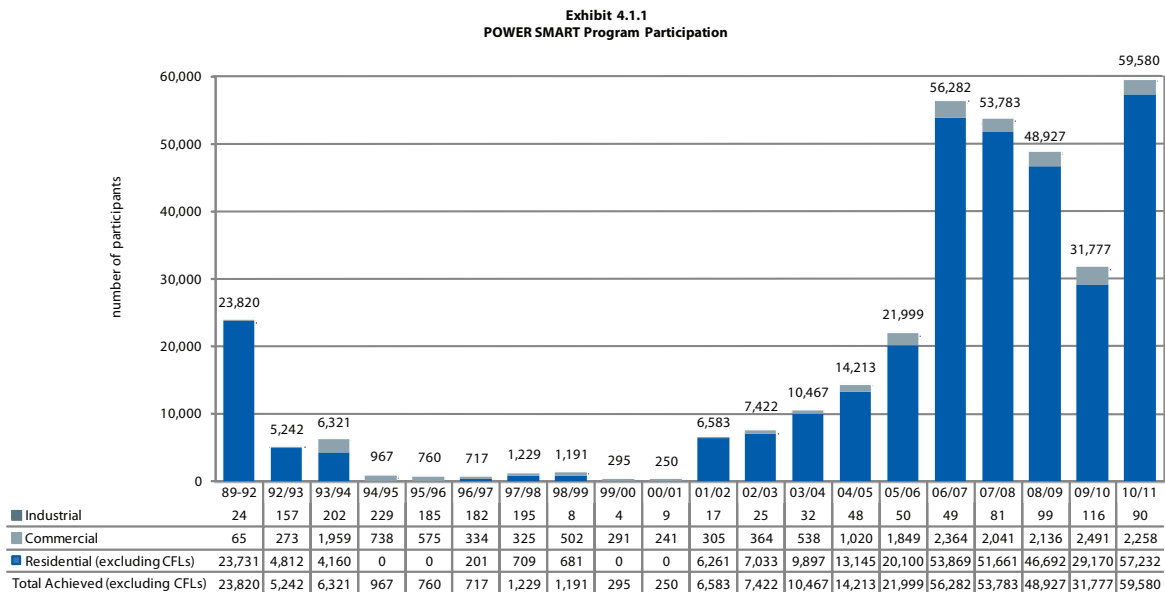
4.1 Power Smart Portfolio Results

The following sections provide an overview of Power Smart portfolio results to date.

4.1.1 Participation in Power Smart Programs

The following graph outlines total Power Smart participation in incentive-based programs, customer service initiatives and cost-recovery programs with

participation presented by sector (i.e. residential, commercial/agricultural and industrial programs).



Note: Includes electric and natural gas participants of customer service initiatives, cost recovery and incentive-based programs. Participation for codes and standards is excluded. Curtailable Rates Program participation is included in the industrial sector. Customers may participate in more than one Power Smart program. The 343,381 participants of the Residential Compact Fluorescent Lighting Program during 2004/05-2010/11 are excluded. Figures may not add due to rounding.

As displayed in the preceding graph, participation in Manitoba Hydro's Power Smart programs continues to be strong. Excluding the Residential Compact Fluorescent Program, there were nearly 60,000 participants in Power Smart customer service initiatives and incentive-based programs during 2010/11, and nearly 352,000 participants cumulatively.

Participation of the Residential Compact Fluorescent

Program has been excluded to provide a better indication of participation trends. The Residential Compact Fluorescent Program was a low-cost option for achieving energy efficiency, and represented 51% of residential Power Smart participation and 49% of overall Power Smart participation.

Refer to Appendix C for a historical list of participants by Power Smart program.

4.1.2 Power Smart Portfolio - Impact of Electric Programs

The following tables outline the electricity savings achieved through the Power Smart portfolio during

2010/11 and provide a comparison between achieved results and planned targets, where applicable:

Exhibit 4.1.2-A

Annual GW.h Savings (at generation) - Power Smart Portfolio

	2010/11		Total*
	Actual	Plan [^]	
INCENTIVE-BASED PROGRAMS	216	191	1,324
CODES & STANDARDS	51	64	481
CUSTOMER SERVICE INITIATIVES	1	3	26
OVERALL IMPACT	269	258	1,832

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results, up to and including 2010/11.

Note: Figures may not add due to rounding.

Exhibit 4.1.2-B

Annual Average Winter MW Savings (at generation) - Power Smart Portfolio

	2010/11		Total*
	Actual	Plan [^]	
INCENTIVE-BASED PROGRAMS	210	196	435
CODES & STANDARDS	9	11	113
CUSTOMER SERVICE INITIATIVES	1	1	9
OVERALL IMPACT	220	208	557

[^] Plan estimates are from the 2010 Power Smart Plan.

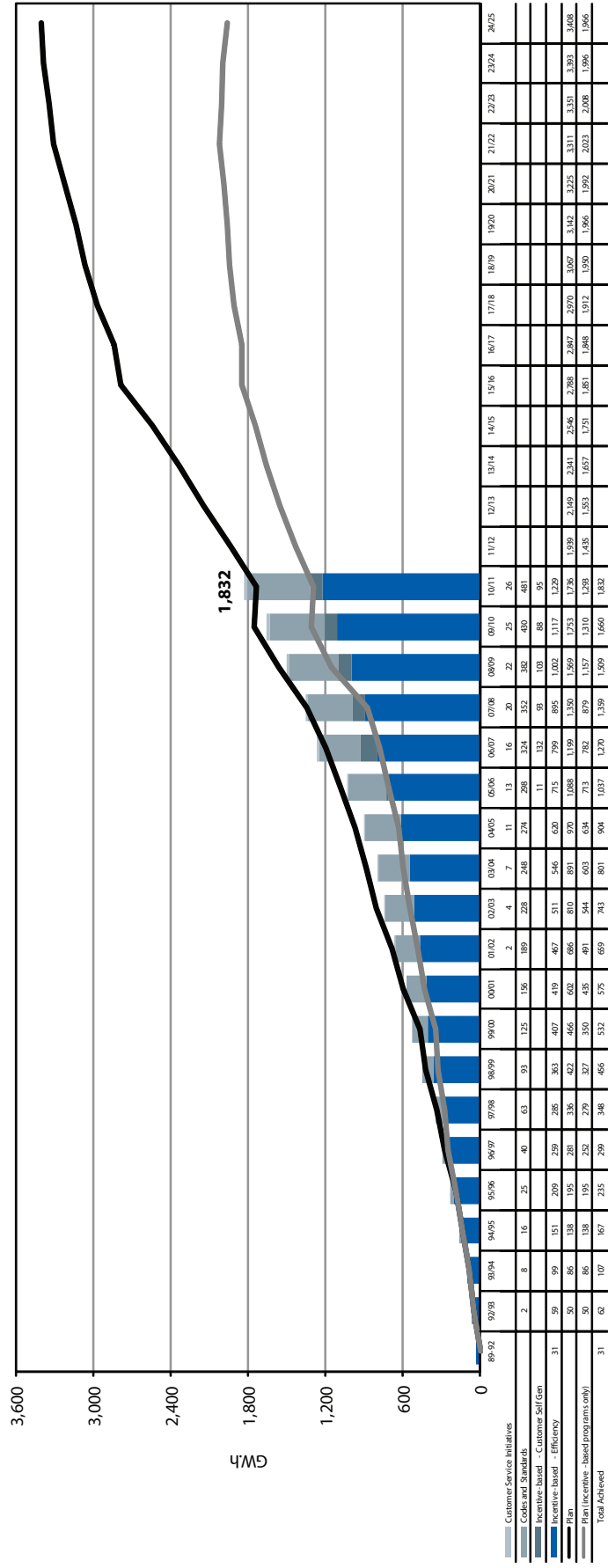
* Savings include actual + persisting results, up to and including 2010/11.

Note: MW savings are based on the average of the winter AM & PM system peak savings. MW savings reported is expected curtailable load on system at the time a curtailment occurs. Figures may not add due to rounding.

The following graphs present the electric energy and demand savings achieved to date by the Power Smart

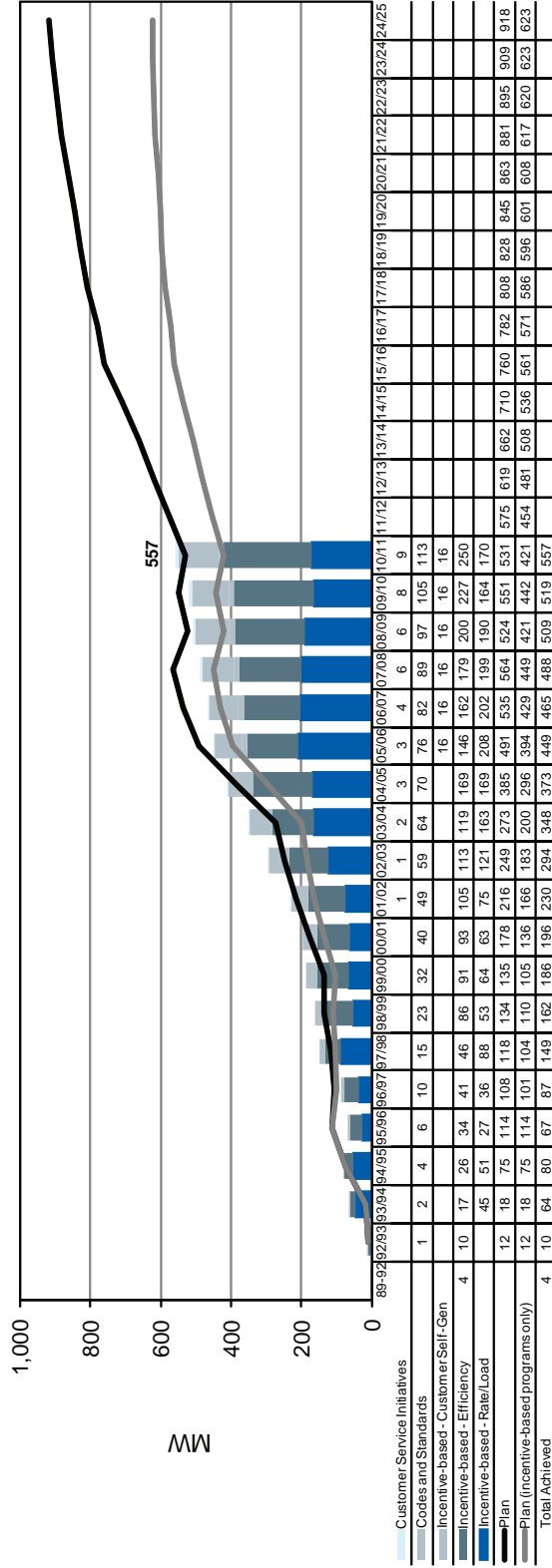
portfolio and the corresponding targets.

Exhibit 4.1.2 -C
Electric Energy Savings - Power Smart Portfolio
 Total Savings Achieved vs. Plan
 at generation



Note: Targeted savings are unadjusted for programs not running or other revisions.
 Figures may not add due to rounding.

Exhibit 4.1.2-D Average Winter Demand Savings - Power Smart Portfolio Total Savings Achieved vs. Plan at generation



Note: Targeted savings are unadjusted for programs not running or other revisions. Figures may not add due to rounding.

Overall to 2010/11, the entire Power Smart portfolio has achieved 1,832 GW.h and 557 MW (at generation), 6% and 5% above their respective targets.

4.1.3 Power Smart Portfolio - Impact of Natural Gas Programs

The following table and graph present natural gas savings achieved by the Power Smart portfolio:

Exhibit 4.1.3 - A
Annual Natural Gas Savings

	2010/11 Actual	2010/11 Plan [^]	Total*
<i>millions of cubic metres</i>			
PROGRAMS & INITIATIVES			
Incentive-Based Programs	11.4	7.7	44.1
Customer Service Initiatives	0.8	0.7	19.0
Codes & Standards	0.9	0.4	4.4
	13.0	8.8	67.5
INTERACTIVE EFFECT			
Incentive-Based Interactive effect with Electric Programs	(1.9)	(2.1)	(10.4)
	(1.9)	(2.1)	(10.4)
NET IMPACT OVERALL	11.2	6.7	57.1

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results, up to and including 2010/11.

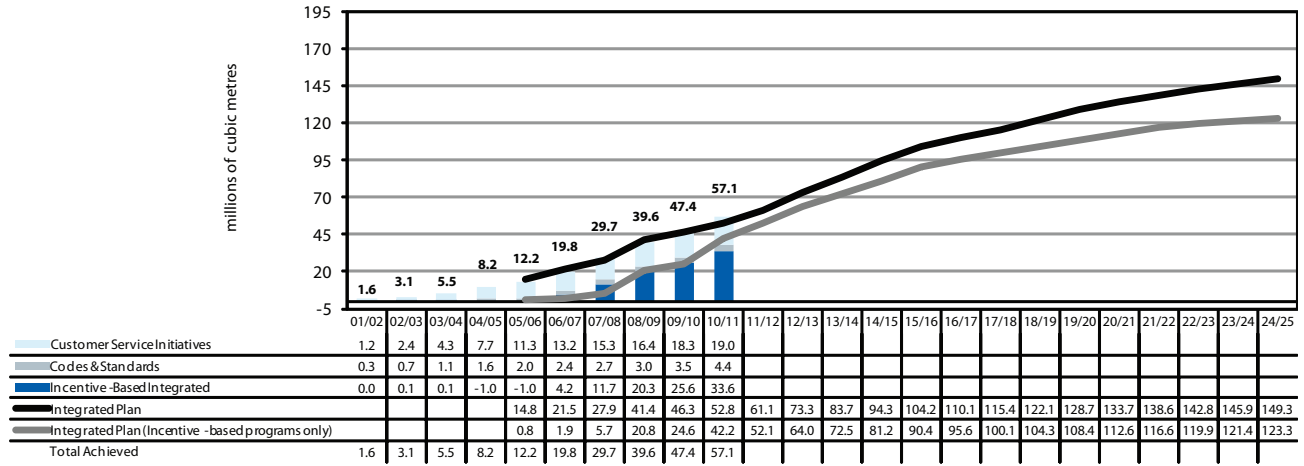
Note: Figures may not add due to rounding.

The Power Smart portfolio provided natural gas savings of 13.0 million cubic metres in 2010/11, which was 48% more than planned.

After interactive effects, a net savings of 11.2 million cubic metres of natural gas were saved in 2010/11, which is 67% more than planned.

The Natural Gas Optimization Program nearly doubled its planned natural gas target, saving an additional 1.5 million cubic metres in 2010/11.

Exhibit 4.1.3 - B
Integrated Natural Gas Savings - Power Smart Portfolio
 Total Savings Achieved vs. Plan



Note: Figures may not add due to rounding.
 Natural gas savings due to codes & standards are not presented.

To date, the Power Smart portfolio has saved over 57 million cubic metres of natural gas, after interactive effects, which is 8% above target.

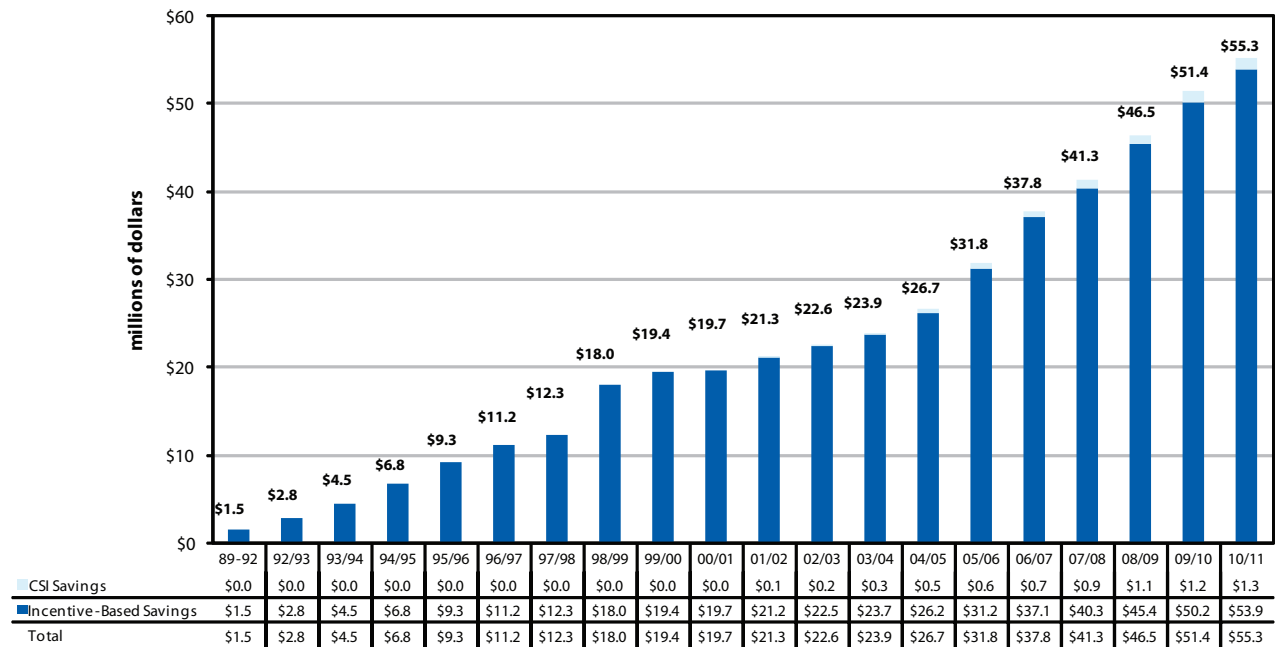
4.1.4 Customer Bill Reduction

Electricity Bill Reduction

When customers save electricity through Manitoba Hydro's Power Smart programs, it translates into lower electricity bills for participating customers. Displayed in

Exhibit 4.1.4-A are the annual customer bill reductions resulting from customer service initiatives and incentive-based Power Smart program electrical savings to date.

Exhibit 4.1.4 - A
Customer Electricity Bill Reduction (2010\$)
millions of dollars



Note: Figures may not add due to rounding.
Bill reductions exclude savings due to codes & standards.
Demand savings resulting from the Curtailable Rates Program are excluded from this analysis.

Power Smart customer service initiatives and incentive-based programs saved participating customers over \$55

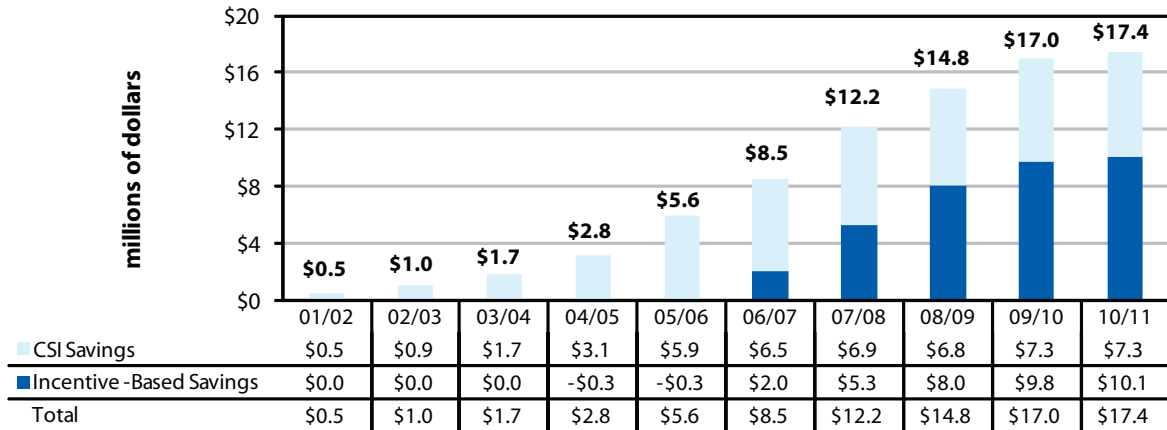
million in 2010/11 and over \$465 million cumulatively on electricity bills to date.

Natural Gas Bill Reduction

Customers also save on their natural gas bills when participating in certain Power Smart initiatives. Exhibit 4.1.4-B displays annual customer bill reductions

resulting from net Power Smart natural gas initiatives savings to date (net of interactive effects).

Exhibit 4.1.4 -B
Customer Natural Gas Bill Reduction (2010\$)
 millions of dollars



Note: Figures may not add due to rounding.
 Bill reductions exclude savings due to codes & standards.
 Interactive effects in 2010/11 resulted in a \$4.1 million increase in customer bills, which is captured within incentive-based savings.
 Natural gas bill reduction includes primary and distribution rates only.

As a result of Power Smart initiatives, participating customers saved more than \$17 million in 2010/11, and \$81 million cumulatively on their natural gas bills to date.

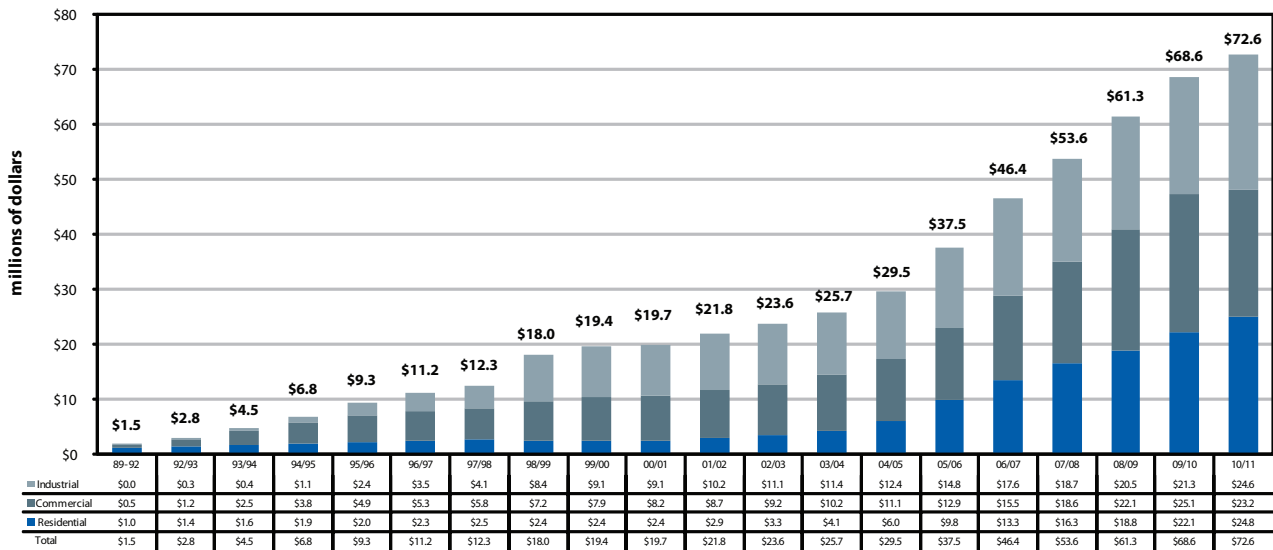
Although natural gas savings achieved in 2010/11 were greater than in 2009/10, natural gas prices dropped. As such, customer natural gas bill reduction was only \$0.4 million higher in 2010/11.

Combined Bill Reduction

The following graph presents the annual customer bill reduction for participants of Power Smart customer service initiatives and incentive-based programs by

sector. Savings include those from both electric and natural gas initiatives.

Exhibit 4.1.4 -C
Combined Electricity & Natural Gas Customer Bill Reduction (2010\$)
 Total Annual Reductions by Sector
 millions of dollars



Note: Figures may not add due to rounding.
 Bill reductions exclude savings due to codes & standards.
 Demand savings resulting from the Curtailable Rates Program are excluded from this analysis.
 Natural gas bill reduction includes primary and distribution rates only.

Power Smart customer service initiatives and incentive-based programs saved participating customers over \$72 million in 2010/11 alone. These savings are essentially split evenly between industrial, commercial and residential customers.

To date, participating customers have saved over \$546 million cumulatively on electricity and natural gas bills. Approximately 37%, 37% and 26% have been saved cumulatively by industrial, commercial and residential customers respectively.

4.1.5 Power Smart Program Impact on Greenhouse Gas Emissions

The energy efficiency measures and improvements installed through Manitoba Hydro's Power Smart programs reduce the amount of greenhouse gas and other air polluting emissions from power generation and the transmission and distribution of natural gas,

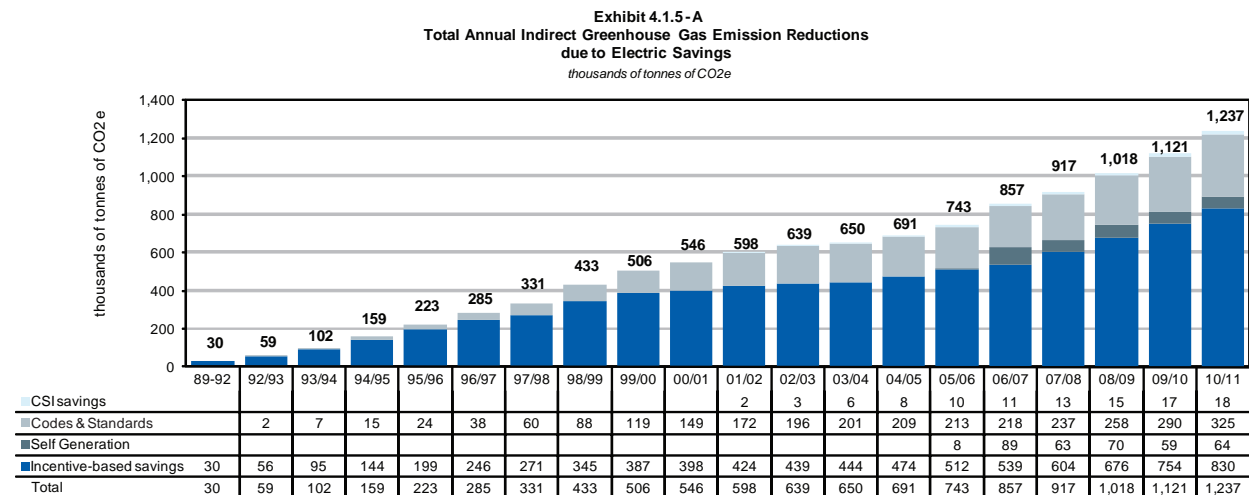
and will continue to do so over their product lives. Both electricity and natural gas consumption reductions have a positive impact on greenhouse gas emissions.

Impact of Electricity Savings

As Manitobans conserve electric energy through Power Smart programs, more hydro electricity is available for export. These exports displace coal and natural gas fuelled generation outside of Manitoba, which results in significant global reductions of greenhouse gases and other emissions. Therefore, the impact of Power Smart programs on global greenhouse gas emissions is quantified based on estimates of reduced coal and natural gas fuelled generation outside the province, and

is measured in carbon dioxide equivalent emissions.

Because the emission reductions do not occur at the site of the participating customer, these reductions are referred to as *indirect* emission reductions. Exhibit 4.1.5-A shows the equivalent reduction in carbon dioxide emissions resulting from Power Smart electric program activity to date.



Note: Figures may not add due to rounding.

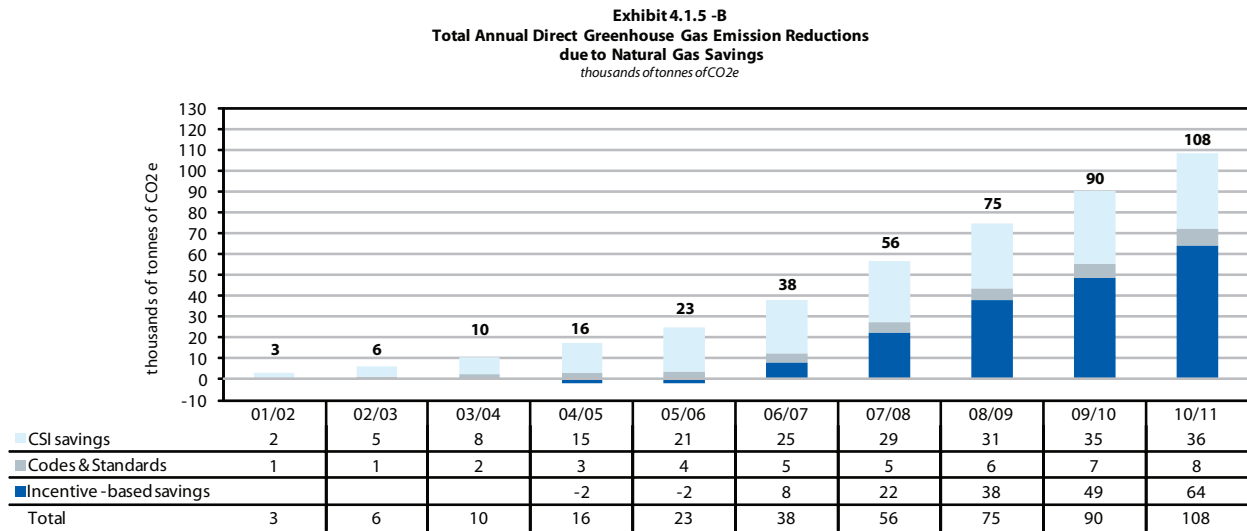
The 1,832 GWh savings resulting from electric Power Smart program activity and codes and standards initiatives to date have displaced greenhouse gas emissions by more than approximately 1,237 thousand

tonnes of carbon dioxide equivalent emissions. This is comparable to removing approximately 247 thousand cars off the road for one full year.

Impact of Natural Gas Savings

Power Smart natural gas programs result in *direct* emission reductions at the location of the participating customer. The following chart displays direct

greenhouse gas reductions that occur as a result of lower natural gas consumption in Manitoba.



Note: Figures may not add due to rounding.

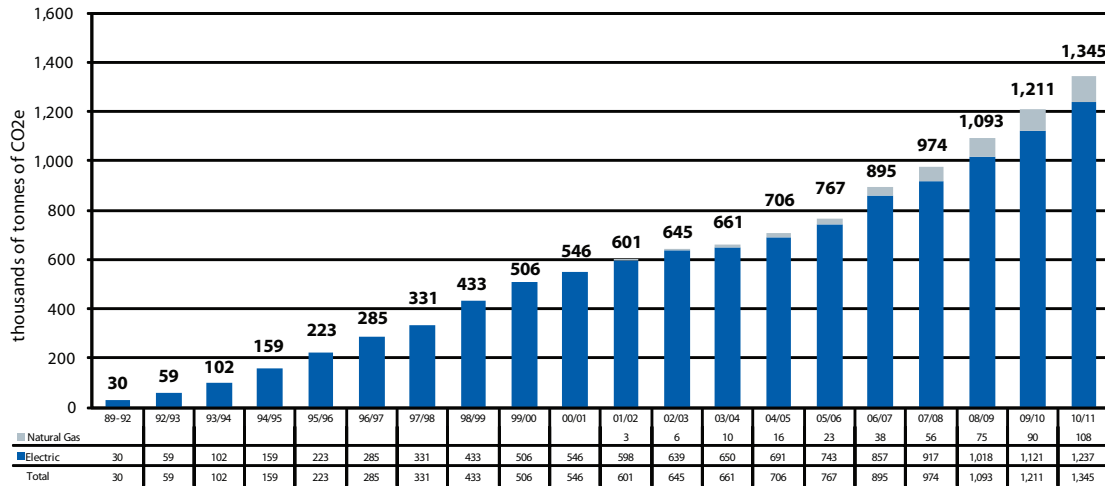
The 57 million cubic metres of reduced natural gas consumption (after interactive effects) from Power Smart programs to date has displaced approximately 108

thousand tonnes of greenhouse gas emissions in 2010/11 alone. This is equivalent to removing approximately 21 thousand vehicles off the road for one full year.

Combined Impact of Electricity and Natural Gas Savings

The following graph presents the greenhouse gas emission reductions that have resulted from all electric and natural gas Power Smart program activity to date.

Exhibit 4.1.5 - C
Total Annual Greenhouse Gas Emission Reductions
Due to Electric & Natural Gas Savings
thousands of tonnes of CO₂e



The 1,832 GWh savings from electricity and 57 million cubic metres savings from natural gas Power Smart programs have resulted in greenhouse gas emission reductions of approximately 1,345 thousand tonnes of

carbon dioxide equivalent emissions. This is comparable to removing approximately 269 thousand vehicles off the road for one full year.

4.2 Customer Service Initiatives & Cost Recovery Programs

4.2.1 Annual Energy & Demand Savings from Customer Service Initiatives & Cost-Recovery Programs

Exhibits 4.2.1-A through 4.2.1-C provide an overview of the estimated electricity and natural gas savings achieved to 2010/11 through customer service initiatives and

cost-recovery programs, for those programs where energy savings can be reasonably measured or estimated using engineering calculations.

Exhibit 4.2.1 - A

Annual GW.h Savings - Electric Customer Service Initiatives & Cost Recovery Programs

	2010/11 Actual	2010/11 Plan [^]	Total*	2024/25 Plan [^]
RESIDENTIAL				
Power Smart Residential Loan	0.5	0.6	7.4	9.6
Residential Earth Power Loan	0.6	1.6	11.8	31.1
Solar Hot Water Heating	-	-	0.1	0.1
ecoENERGY	-	-	0.8	-
	1.2	2.3	20.1	40.8
DISCONTINUED/COMPLETED PROGRAMS				
	-	-	3.0	-
	-	-	3.0	-
TOTAL (at customer meter)	1.2	2.3	23.0	40.8
TOTAL (at generation)	1.3	2.6	26.3	46.5

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results, up to and including 2010/11.

Exhibit 4.2.1 - B

Average Winter MW Savings - Electric Customer Service Initiatives & Cost Recovery Programs

	2010/11 Actual	2010/11 Plan [^]	Total*	2024/25 Plan [^]
RESIDENTIAL				
Power Smart Residential Loan	0.3	0.3	4.2	5.1
Residential Earth Power Loan	0.3	0.5	3.3	9.7
ecoENERGY	-	-	-	-
Solar Hot Water Heating	-	-	-	-
	0.6	0.8	7.5	14.8
DISCONTINUED/COMPLETED PROGRAMS				
	-	-	0.2	-
	-	-	0.2	-
TOTAL (at customer meter)	0.6	0.8	7.7	14.8
TOTAL (at generation)	0.7	1.0	8.8	16.9

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results, up to and including 2010/11.

Exhibit 4.2.1 - C

Annual m³ Savings - Natural Gas Customer Service Initiatives & Cost Recovery Programs

	2010/11 Actual	2010/11 Plan [^]	Total*	2024/25 Plan [^]
RESIDENTIAL				
Power Smart Residential Loan	0.3	0.5	14.3	7.5
Residential Earth Power Loan	0.4	0.2	2.1	4.1
Solar Hot Water Heating	-	-	-	-
ecoENERGY	-	-	2.3	-
	0.8	0.7	18.7	11.6
DISCONTINUED/COMPLETED PROGRAMS				
	-	-	0.3	-
	-	-	0.3	-
TOTAL	0.8	0.7	19.0	11.7

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results, up to and including 2010/11.

4.3 Energy Efficiency Codes & Standards

Along with other North American utilities, Manitoba Hydro has been engaged in DSM activities for many years. In addition to utility-specific DSM programs, some utilities, including Manitoba Hydro, are actively involved in a number of provincial and national committees. These committees work with governments and equipment manufacturers to gain acceptance of higher efficiency levels for various technologies, and to encourage adoption of energy efficiency standards and regulations.

Manitoba Hydro prepares an annual forecast of the expected influence of codes and standards, and since

1995 this forecast has been used to adjust Manitoba Hydro's system load forecast.

In many cases, legislation is the most effective and permanent form of market transformation, as it ensures customers do not revert to less efficient technologies/practices once the incentives and/or promotional activities are discontinued. Traditionally, changing legislation can be complex when faced with lack of market acceptance. These changes impact building design and construction, as well as industry manufacturing processes, and therefore do not always receive strong industry support.

4.3.1 National Activities

As Manitoba is not a major manufacturer of energy efficient products and offers a relatively small market for appliances/equipment, Manitoba Hydro's strategy is to be a very active participant, and in many cases a driving force, on a number of national energy efficiency code and standards committees. Manitoba Hydro representatives often chair these committees which undertake three functions:

1. Provide industry with assistance in the development of technologies;
2. Develop codes and standards; and
3. Assist in industry and market acceptance of the codes and standards.

These activities have proven to be extremely successful given the adoption and acceptance of code changes in recent years. The following examples highlight some of the efforts underway to encourage the future adoption of national energy efficiency standards and regulations.

Manitoba Hydro is a key player on the CSA Strategic Steering Committee on Performance, Energy Efficiency and Renewables (SCOPEER), which is responsible for changes to national performance standards and legislation which have resulted in the improvement of energy utilization of numerous appliances. An example of the influence of this committee is in the residential refrigeration market. As a result of the efforts of this committee working with Canadian manufacturers, refrigerator manufacturers now market products which exceed the current minimum efficiency standards for inter-provincial exporting.

Beginning in September 2005, Manitoba Hydro chaired the newly-created Manitoba Energy Code

Advisory Committee which was tasked to provide recommendations for the adoption, development and implementation of energy efficiency requirements for all new commercial construction (i.e. new buildings, additions to existing buildings and major renovations of existing buildings) in Manitoba.

In the report "Building Energy, Building Leadership", the Committee recommended Manitoba adopt the Model National Energy Code for Buildings in the following three stages: (1) Adopt the Model National Energy Code for Buildings (1997) as a regulation under The Buildings and Mobile Homes Act, (2) Develop and adopt Manitoba Amendments to the Model National Energy Code for Buildings by January 1, 2009, and (3) Support and participate in a national initiative to update the Model National Energy Code for Buildings.

The Committee recommended that Manitoba adopt the energy code as a regulation under The Buildings and Mobile Homes Act, rather than as a regulation under The Energy Act because The Buildings and Mobile Homes Act supersedes all other provincial legislation with respect to requirements for buildings.

Manitoba Hydro and representatives of the Province of Manitoba are working together to develop an industry consultation plan and a strategy to implement the recommendations outlined in the report.

Further supporting the development of energy codes for buildings, Manitoba Hydro is a former chair of the Building Energy Codes Collaborative (BECC). BECC is a provincial/territorial/federal committee supported by the Council of Energy Ministers, the Assistant Deputy Minister Steering Committee on Energy Efficiency (ASCEE) and Natural Resources Canada. It consists of

representatives from both the code ministries and the energy ministries of provinces and territories working together to advance energy efficiency in building codes. In 2007, BECC was successful in securing the political and financial support necessary to convince the Canadian Commission on Building and Fire Codes to

4.3.2 Provincial Activities

Initially, a building code for residential homes was proposed by the Federal Government and was to be adopted by the Province of Manitoba in 1997. Due to a decline in new house starts and the perceived impact on building costs of a proposed Model National Energy Code for Houses (MNECH), it was anticipated that members of the new home construction industry would be reluctant to support the proposed MNECH. Recognizing this, Manitoba Hydro initiated and sponsored amendments to the insulation tables for new houses in the Manitoba building code as an interim measure to improve upon eroding insulation practices below the 53rd parallel. The interim measures improved insulation practices in new housing north of the 53rd parallel. As anticipated, the MNECH was not adopted; however, Manitoba Hydro's amendments were introduced in Manitoba in November 1998 with the support of the new home construction industry.

In July 2006, the requirements under insulation tables for new houses of the Manitoba Building Code were adjusted to simplify the requirements. Manitoba Hydro played a key role in ensuring that efficiency requirements were not significantly diluted. As a result, Manitoba's minimum requirements for insulation in new homes are the highest in Canada.

In September 2007, Manitoba Hydro presented research on the life cycle benefits of improved basement insulation to homeowners and was successful at convincing the Building Standards Board of Manitoba

update the Model National Energy Code for Buildings. Currently, Manitoba, Ontario, Quebec and British Columbia are recognized as the most active and have made the most progress with respect to implementing energy efficiency requirements in buildings.

to request R20 in foundation walls for all homes in Manitoba.

As of January 1st, 2010, The Manitoba Energy Act regulations state that all natural gas furnaces sold in Manitoba's commercial market must be at least 92% annual fuel utilization efficiency (AFUE) or greater. Meanwhile, Federal regulations require only a minimum efficiency of 90%. As a result, Manitoba Hydro's Commercial Gas Furnace program has had a direct impact on market transformation in Manitoba. For this reason, the additional 2% in energy savings relative to the Federal regulations have been claimed from all furnaces sold in Manitoba's residential & commercial market from January 1st, 2010 forward.

Manitoba Hydro's most recent involvement with Provincial codes was with the Manitoba amendments made to Part 9 (residential) of the Building Code that came into force on December 1st, 2010. The amendments introduced energy efficiency and water efficiency as new objectives under the code, and stipulated minimum performance requirements for newly-constructed homes in the areas of insulation, windows, heating systems and plumbing fixtures. Manitoba Hydro played a key role in developing the recommendations through technical review of proposed efficiency levels, and perhaps even more critically, through preparing the industry for accepting the code recommendations through offering the Power Smart New Home Program. With the final approved efficiency levels consisting largely of the

technologies which made up the Power Smart Gold standard, testament can be given to the importance that voluntary incentive-based programs have in accelerating market acceptance and penetration of energy efficient technologies, thereby making the transition to building

codes more seamless. With enforcement occurring for all building permits issued after December 1st, 2010, it is anticipated that savings related to the code amendment will be realized in early-2011.

4.3.3 Annual Energy & Demand Savings from Energy Efficiency Codes & Standards

The following section outlines the estimated energy and demand savings resulting from codes and standards improvements in the Manitoba marketplace. As part of the 2010/11 evaluation process, the assumptions and

methodologies used in calculating historical codes and standards savings were reviewed and revised where appropriate to reflect more current market knowledge.

Exhibit 4.3.3-A

Energy Efficiency Codes & Standards Savings

CODE CATEGORY & COMPONENTS	CODE & MANITOBA HYDRO'S INFLUENCE	SAVINGS (AT METER)	
		2010/11	Cumulative
Residential Insulation	-Manitoba Building Code Regulation 4/2008 (Oct. 2008) increased minimum required level of insulation from R12 to R20	2.9 GW.h	17.3 GW.h
		2.2 MW	7.6 MW
		278,447 m3	544,782 m3
Residential Appliances: Ranges, dishwashers, clothes washers, clothes dryers, refrigerators, freezers	-Member of Strategic Steering Committee on Performance, Efficiency & Renewables (SCOPEER) -Savings based on Energy Star efficiency improvements	32.8 GW.h	285.4 GW.h
		4.8 MW	62.1 MW
		295,245 m3	3,400,037 m3
Other Residential Equipment: Central air conditioning, electric hot water tank, furnace	-CSA Standard C191-00 (July 2004) for electric hot water tanks -CSA Standard C656-05 (Nov. 2006) for central air conditioning -MB Energy Act (Dec. 2009) states furnaces must be ≥92% AFUE	9.0 GW.h	9.0 GW.h
		0.3 MW	0.3 MW
		206,864 m3	310,856 m3
Commercial Lighting: T12 & T8 fluorescent lighting	-Member of Strategic Lighting Initiative Committee (SLIC), etc. -National Energy Efficiency Act (1996) increased min. efficiency requirement of T12 lighting from 40 to 34 watts	0.4 GW.h	94.8 GW.h
		0.1 MW	26.7 MW
		- m3	- m3
Other Commercial Equipment: Furnaces	-MB Energy Act (Dec. 2009) states furnaces must be ≥92% AFUE	- GW.h	- GW.h
		- MW	- MW
		112,232 m3	154,426 m3
Industrial Equipment: High Efficiency Motors	-Member of Coordinated Utilities Approach (CUA) -Oct. 1997 code change (min. efficiency increased to 82.5-95.0%) -Last year of claimed savings was 2006/07	- GW.h	16.2 GW.h
		- MW	2.8 MW
		- m3	- m3
TOTAL		45.0 GW.h	422.8 GW.h
		7.5 MW	99.5 MW
		892,788 m3	4,410,101 m3

As a result of efforts to achieve energy savings through energy efficient codes and standards, including persisting savings, it is estimated that 423 GWh and 100 MW in electric savings, and 4 million cubic metres in natural gas savings were achieved, resulting in nearly 294 thousand tonnes of greenhouse gas emission reductions in 2010/11.

In 2010/11 alone, as a result of energy efficient codes and standards, it is estimated that 45 GWh and over 7 MW in electric savings, and 893 thousand cubic metres in natural gas savings were achieved, resulting in 32 thousand tonnes of greenhouse gas emission reductions.

Exhibit 4.3.3 - B
Energy Efficiency Codes & Standards
Cumulative GWh Savings Achieved
(at Customer Meter)

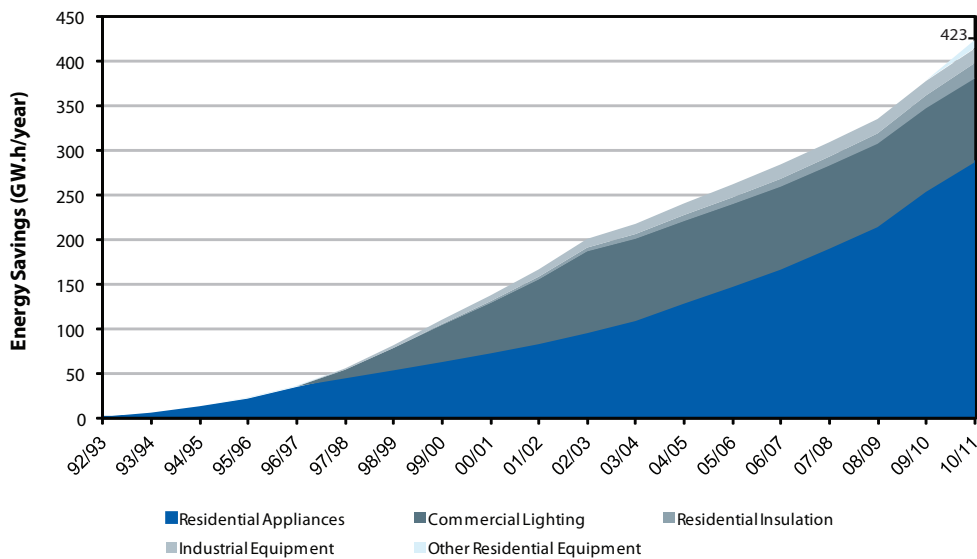


Exhibit 4.3.3 - C
Energy Efficiency Codes & Standards
Cumulative MW Savings Achieved
(at Customer Meter)

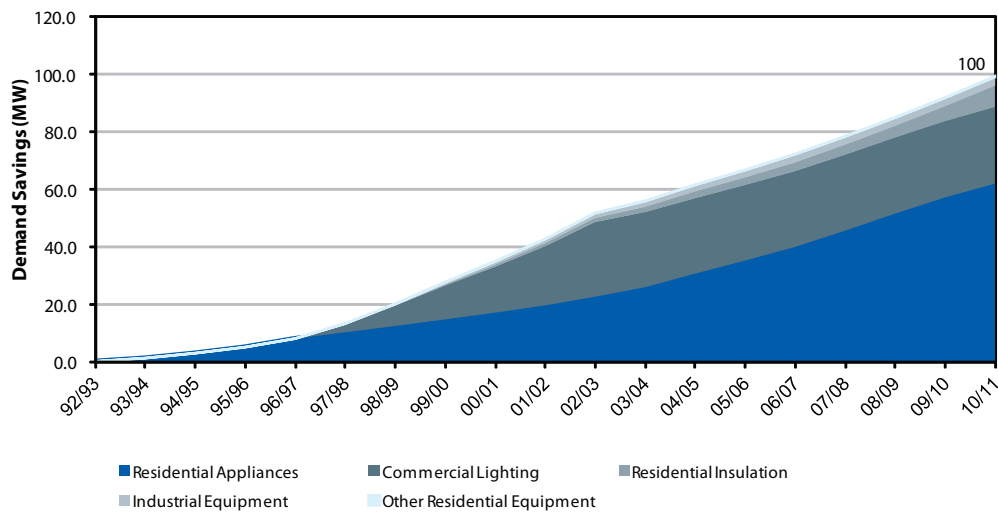
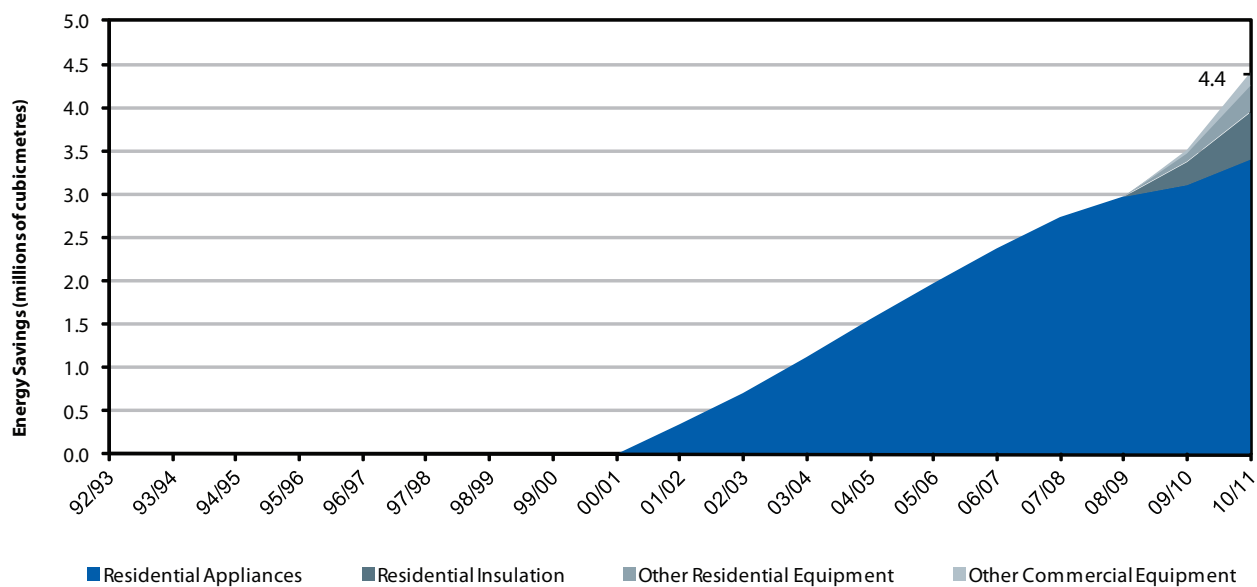


Exhibit 4.3.3 - D
Energy Efficiency Codes & Standards
Cumulative Natural Gas Savings



Because there are many participants (utilities, governments, manufacturers, environmental groups, etc.) contributing to the formation of energy efficiency codes and standards, it is difficult to allocate specific credit for energy and demand savings among the

various participants. For this reason, Manitoba Hydro only reports the estimated load reduction results from changes to energy efficiency codes and standards. The estimated savings from codes and standards are not included in Power Smart economic metrics.

4.4 Incentive-Based Power Smart Programs

Power Smart incentive-based programs are designed to accelerate market awareness and acceptance of new energy efficiency standards and practices.

4.4.1 Power Smart Electric Program Results

The following sections outline the Power Smart program benefit/cost analyses and average levelized utility costs. results in terms of electric energy and demand savings,

4.4.1.1 Annual Energy Savings

Energy savings achieved by incentive-based Power Smart programs in 2010/11 is displayed by sector and program in Exhibits 4.4.1.1-A and B respectively. Exhibit 4.4.1.1-B also provides cumulative energy savings achieved by incentive-based Power Smart programs.

**Exhibit 4.4.1.1 - A
Percentage of Annual GW.h Savings
Electric Incentive-Based Programs**

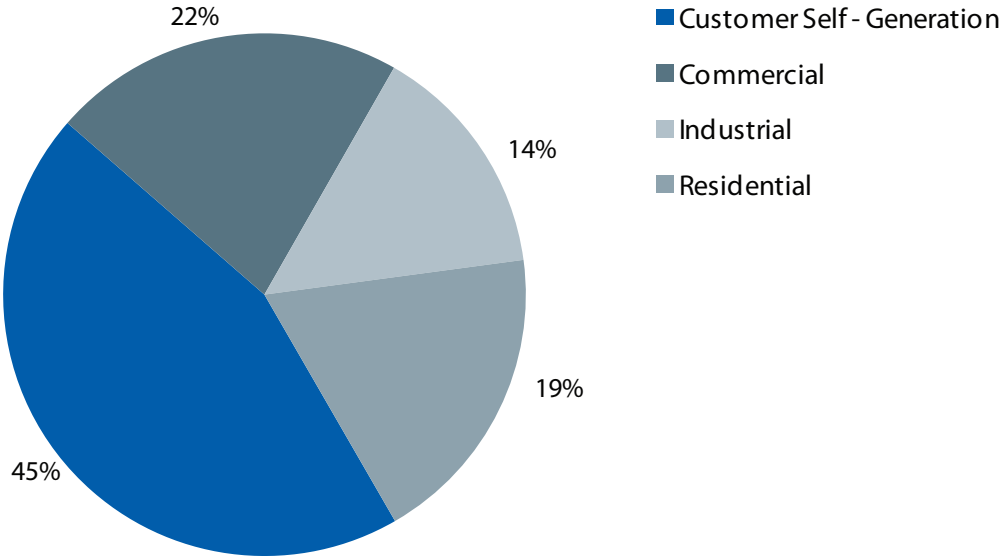


Exhibit 4.4.1.1 - B

Annual GW.h Savings - Electric Incentive-Based Programs

	2010/11 Actual	2010/11 Plan [^]	Total*	2024/25 Plan [^]
RESIDENTIAL				
Compact Fluorescent Lighting**	21.7	19.2	92.1	-
Home Insulation**	5.3	4.7	33.8	51.2
Water & Energy Saver	5.3	4.3	5.3	24.0
Lower Income Energy Efficiency	2.3	1.7	4.2	6.8
Energy Efficient Light Fixtures**	1.0	0.2	3.7	1.3
New Home	0.8	0.5	5.0	33.4
Refrigerator Retirement	-	3.3	-	13.0
Residential Discontinued/Completed Programs**	-	1.1	55.2	49.6
	36.4	35.0	199.2	179.3
COMMERCIAL				
Commercial Lighting	19.4	28.6	258.7	469.7
Commercial Building Envelope	5.6	5.7	19.4	86.3
Internal Retrofit	2.6	4.5	24.0	60.8
Commercial Earth Power**	2.4	2.2	26.0	42.3
Commercial HVAC - Chillers & CO2 Sensors	1.8	1.0	7.1	25.8
Commercial Custom Measures	1.5	0.6	18.8	23.3
Commercial Refrigeration	1.4	1.3	7.0	30.9
Power Smart Shops	0.4	0.4	0.7	1.7
City of Winnipeg Power Smart Agreement	0.3	0.2	11.1	4.4
Commercial Building Optimization	0.2	0.7	0.9	16.7
Commercial Kitchen Appliances	0.1	0.2	0.6	5.4
Commercial Clothes Washers	0.1	0.1	0.4	1.6
Commercial Network Energy Management	-	3.1	0.2	1.0
Commercial New Buildings Program	-	3.3	-	91.3
Power Smart Energy Manager	-	-	-	-
Commercial Discontinued/Completed Programs	6.6	1.3	115.7	90.8
	42.3	53.3	490.6	951.7
INDUSTRIAL				
Performance Optimization	28.3	12.9	347.9	442.8
Emergency Preparedness	-	-	-	35.3
Industrial Discontinued/Completed Programs	-	-	54.5	54.5
	28.3	12.9	402.4	532.5
EFFICIENCY PROGRAMS SUBTOTAL				
	106.9	101.3	1,092.2	1,663.5
CUSTOMER SELF-GENERATION PROGRAMS				
Bioenergy Optimization	86.6	69.6	86.6	77.8
	86.6	69.6	86.6	77.8
TOTAL (at customer meter)				
	193.5	170.8	1,178.8	1,741.2
TOTAL (at generation)				
	216.0	191.5	1,324.3	1,960.6

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results., up to and including 2010/11.

** Includes market transformation.

Note: Figures may not add due to rounding.

In 2010/11, Power Smart incentive-based programs, including both efficiency-based programs and customer self-generation, surpassed plan by 22.7 GW.h. Efficiency-based programs were 5.6 GW.h above plan while customer self-generation was 17.0 GW.h above plan.

The variances within Power Smart incentive-based efficiency programs in 2010/11 are highlighted below:

Residential:

- The residential sector, which accounted for 19% of total GW.h savings in 2010/11, contributed 36.4 GW.h, exceeding its planned savings by 1.4 GW.h.
- The Compact Fluorescent Lighting Program achieved 21.7 GW.h, exceeding plan by 2.5 GW.h.
- The Water & Energy Saver Program contributed 5.3 GW.h in its first year of activity, which was 1 GW.h or 19% more energy savings than planned.
- The delayed launch of the Refrigerator Retirement Program accounted for 3.3 GW.h of unrealized savings.

Commercial:

- The commercial sector, which accounted for 22% of savings in 2010/11, contributed 42.3 GW.h, falling 11.0 GW.h short of target.
- The Commercial Lighting Program was 9.2 GW.h below plan, which can be attributed to the emerging trend of a higher proportion of program participants undertaking smaller lighting projects than planned.

- The Internal Retrofit Program was 1.9 GW.h below plan due to a lower number of projects than anticipated along with a deviation from the planned product mix.
- The Commercial Network Energy Management Program experienced dramatically lower participation than planned, resulting in a negative variance of 3.1 GW.h.

Industrial:

- The industrial sector, which is driven primarily by the Performance Optimization Program, accounted for 14% of total GW.h savings in 2010/11 contributing 28.3 GW.h, which was 15.4 GW.h above plan. Energy savings for the Performance Optimization Program were 119% greater than planned due to greater per project savings than anticipated.

Customer Self-Generation:

- The Bioenergy Optimization Program accounted for 45% of total GW.h savings in 2010/11 contributing 86.6 GW.h of savings, thereby surpassing its intended annual energy savings target by 24%.

4.4.1.2 Average Winter Peak Demand Savings

Demand savings achieved by incentive-based Power Smart programs in 2010/11 is displayed by sector and program in Exhibits 4.4.1.2-A and B respectively. Exhibit 4.4.1.2-B also provides cumulative demand savings

achieved by incentive-based Power Smart programs. The demand savings are presented as an average of the winter AM and PM system peak savings.

Exhibit 4.4.1.2 - A
% of Average Winter MW Savings - Electric Incentive - Based Programs

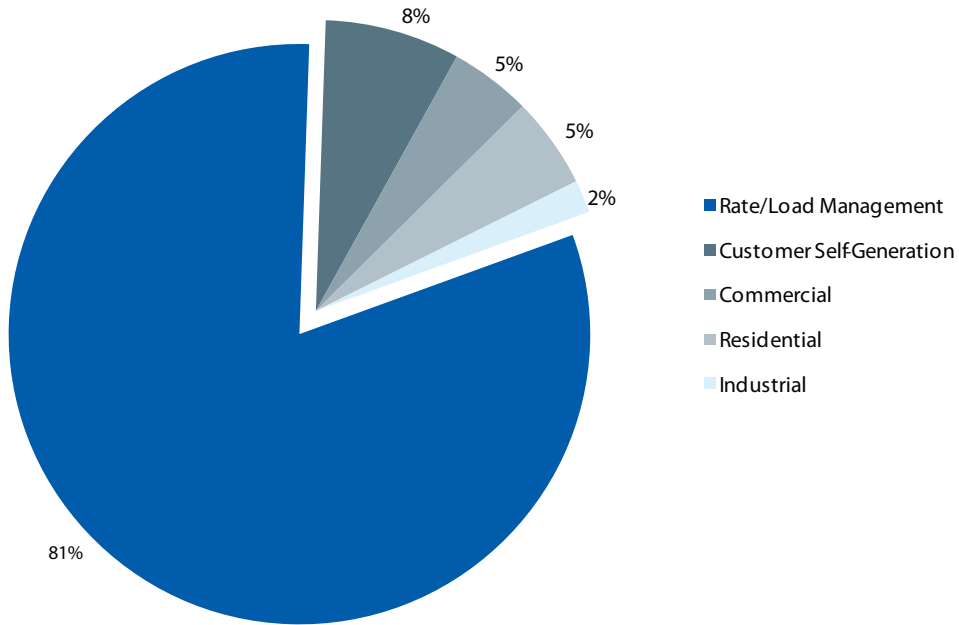


Exhibit 4.4.1.2 - B

Average Winter MW Savings - Electric Incentive-Based Programs

	2010/11 Actual	2010/11 Plan [^]	Total*	Planned Savings to 2024/25 [^]
RESIDENTIAL				
Compact Fluorescent Lighting**	5.1	3.9	21.3	-
Home Insulation**	2.6	2.3	16.4	24.8
Lower Income Energy Efficiency	0.8	0.4	1.5	2.1
Water & Energy Saver	0.7	0.7	0.7	3.8
New Home	0.3	0.2	1.5	7.7
Energy Efficient Light Fixtures**	0.2	0.0	0.6	0.2
Refrigerator Retirement	-	0.3	-	1.1
Residential Discontinued/Completed Programs**	-	0.2	4.9	4.3
	9.7	8.1	46.9	44.1
COMMERCIAL				
Commercial Lighting	3.5	7.4	45.7	100.7
Commercial Building Envelope	2.7	2.6	8.8	39.5
Commercial Earth Power**	0.9	0.8	11.2	17.4
Internal Retrofit	0.5	0.5	4.0	14.3
Commercial Refrigeration	0.3	0.2	1.9	4.2
Commercial Custom Measures	0.2	0.1	1.4	2.4
City of Winnipeg Power Smart Agreement	0.1	0.1	2.5	0.5
Power Smart Shops	0.1	0.1	0.1	0.3
Commercial New Buildings	-	0.6	-	17.5
Commercial Building Optimization	0.0	0.2	0.0	5.6
Commercial Network Energy Management	0.0	0.2	0.0	0.1
Commercial Clothes Washers	0.0	0.1	0.3	1.2
Commercial Kitchen Appliances	0.0	0.1	0.1	1.8
Commercial HVAC	-	-	-	-
Power Smart Energy Manager	-	-	-	--
Commercial Discontinued/Completed Programs	0.3	0.1	15.1	13.8
	8.6	13.1	91.3	219.2
INDUSTRIAL				
Performance Optimization	3.5	2.0	75.5	92.5
Emergency Preparedness	-	-	-	35.3
Industrial Discontinued/Completed Programs	-	-	8.2	7.9
	3.5	2.0	83.7	135.6
EFFICIENCY PROGRAMS SUBTOTAL				
	21.7	23.1	221.9	398.9
CUSTOMER SELF-GENERATION PROGRAMS				
Bioenergy Optimization	14.3	7.6	14.3	9.7
	14.3	7.6	14.3	9.7
RATE/LOAD MANAGEMENT PROGRAMS				
Curtable Rates	154.5	146.3	154.5	146.3
	154.5	146.3	154.5	146.3
TOTAL (at customer meter)				
	190.6	177.0	390.7	554.9
TOTAL (at generation)				
	210.3	195.6	435.3	620.9

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results, up to and including.

** Includes market transformation.

Note: Figures may not add due to rounding.

In 2010/11, Power Smart incentive-based programs, including both efficiency-based programs and customer self-generation, surpassed plan by 13.6 MW. The greatest driver of demand savings was the Curtailable Rates Program, which accounted for 81% of total MW savings.

The most notable variances by program sector are highlighted below:

Residential:

- The residential sector, which accounted for 5% of total demand savings in 2010/11, contributed 9.7 MW, exceeding its planned savings by 1.6 MW.
- The Compact Fluorescent Lighting Program exceeded planned demand savings by 1.2 MW or 31%.
- The Refrigerator Recycling Program was delayed and did not launch in 2010/11 as forecasted. As a result, the program did not report demand savings and fell 0.3 MW below plan.

Commercial:

- The commercial sector, which also accounted for 5% of total demand savings in 2010/11, contributed 8.6 MW, falling 4.5 MW below target.
- The Commercial Lighting Program achieved 3.5 MW or 47% of its planned demand savings. This can be attributed to a higher number of program participants taking on smaller lighting projects than planned.

- The Commercial New Buildings Program did not have any completed projects in 2010/11. As a result, the program did not claim any demand savings, thereby falling below plan by 0.6 MW.

Industrial:

- The industrial sector accounted for 2% of total demand savings in 2010/11, contributing 3.5 MW or 75% above plan. This positive variance is largely due to greater than expected per project savings by the Performance Optimization Program.

Customer Self-Generation:

- The Bioenergy Optimization Program contributed 14.3 MW in total demand savings, surpassing plan by 88% or 6.7 MW.

Rate/Load Management:

- The Curtailable Rates Program, which accounted for 81% of total demand savings in 2010/11, contributed 154.5 MW, 8.2 MW above plan.

4.4.1.3 Electric Rate Impact Measure- Benefit/Cost Analysis

Exhibits 4.4.1.3-A and B identify the benefit/cost ratios under the rate impact measure (RIM) test by program.

The calculation of the benefit/cost ratio was based on a 30-year evaluation period. Refer to APPENDIX F - 'Summary of Evaluation & Planning Reports' for further detail of assumptions and of the type of calculations

used in evaluating programs. Refer to APPENDIX B- 'Explanation of Benefit/Cost Ratios used in DSM Economic Tests' for formulas and criteria used to determine cost-effectiveness.

Exhibit 4.4.1.3 - A
2010/11 RIM - Electric Incentive-Based Programs

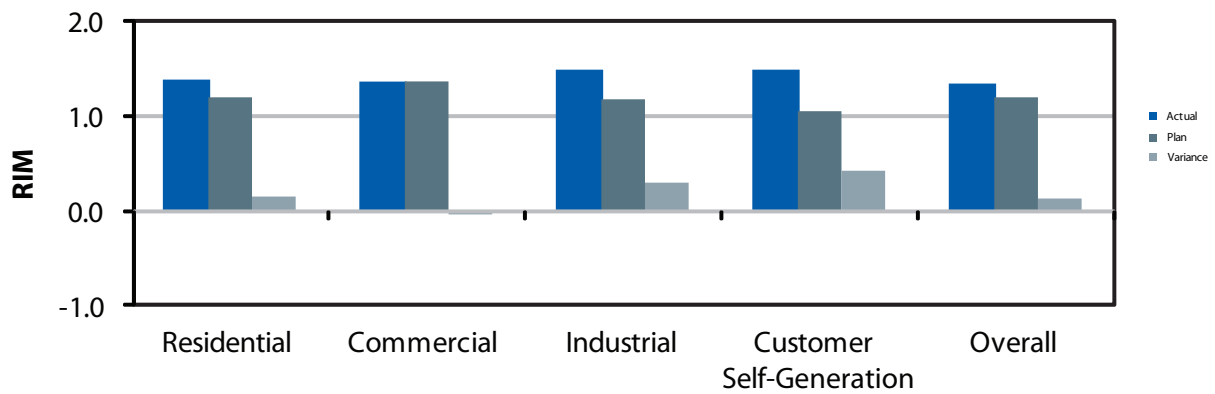


Exhibit 4.4.1.3 - B

Rate Impact Cost Benefit/Cost Analysis - Electric Incentive-Based Program

	2010/11 Actual	2010/11 Plan^^	Total*	2024/25 Plan^^
	<i>RIM</i>			
RESIDENTIAL				
Home Insulation	1.7	1.7	1.6	1.6
New Home	1.5	1.1	0.8	1.6
Compact Fluorescent Lighting	1.3	1.2	1.2	1.3
Lower Income Energy Efficiency**	1.2	0.8	0.7	1.3
Water & Energy Saver	1.1	1.0	1.1	1.0
Energy Efficient Light Fixtures	1.0	0.8	0.9	0.8
Refrigerator Recycling	-	-	-	0.8
	1.4	1.2	1.2	1.3
COMMERCIAL				
Commercial Earth Power	2.0	1.8	1.7	1.9
Internal Retrofit	1.8	1.3	2.5	1.0
Commercial Custom Measures	1.7	1.3	1.3	1.3
Commercial Building Envelope	1.7	1.9	1.6	1.9
Commercial Building Optimization	1.4	1.5	0.5	1.7
Commercial Refrigeration	1.4	1.2	1.4	1.2
City of Winnipeg Agreement Power Smart Agreement ^o	1.3	1.5	0.7	1.6
Commercial Kitchen Appliances	1.1	1.1	1.0	1.3
Commercial Lighting	1.1	1.3	1.1	1.4
Commercial HVAC	1.0	0.9	1.0	1.0
Commercial Clothes Washers	0.9	1.3	1.1	1.5
Power Smart Shops	0.9	0.9	0.7	0.9
Commercial Network Energy Management	0.3	0.8	0.2	1.0
Commercial New Buildings	-	1.4	-	1.5
Power Smart Energy Manager	-	-	-	1.0
	1.3	1.4	1.2	1.4
INDUSTRIAL				
Performance Optimization	1.5	1.2	1.3	1.2
Emergency Preparedness	-	-	-	1.2
	1.5	1.2	1.3	1.2
DISCONTINUED/COMPLETED PROGRAMS	1.5	1.3	0.9	1.3
CUSTOMER SELF-GENERATION PROGRAMS				
Bioenergy Optimization	1.5	1.0	1.3	1.4
OVERALL PROGRAM COSTS	1.4	1.2	1.2	1.2
OVERALL PROGRAM COSTS + SUPPORT COSTS^	1.3	1.2	1.1	1.2

* "Total" values represent the results of the program/portfolio since its inception.

** Includes all Affordable Energy Fund expenditures.

^ Support costs contain customer service initiatives, basic information services and program support costs.

^^ Plan estimates are from the 2010 Power Smart Plan.

o Includes the present value of projected future commitment payment receipts.

Note: Benefit/Cost analysis is not calculated for rate/load management programs.

4.4.1.4 Electric Average Levelized Utility Costs- ¢/kW.h Saved

Exhibits 4.4.1.4-A and B highlight the average levelized utility cost of 2010/11 electric incentive-based programs in ¢/kW.h. The calculation of ¢/kW.h saved was based upon current program kW.h savings at generation over a 30-year evaluation period. Refer to APPENDIX E - 'Summary of Evaluation & Planning Reports'

for further detail of assumptions and of the type of calculations used in evaluating programs. The utility costs presented do not include costs associated with customer service initiatives, standards activities or the customer costs of demand-side management measures.

Exhibit 4.4.1.4 - A
2010/11 Average Levelized Utility Cost
at generation

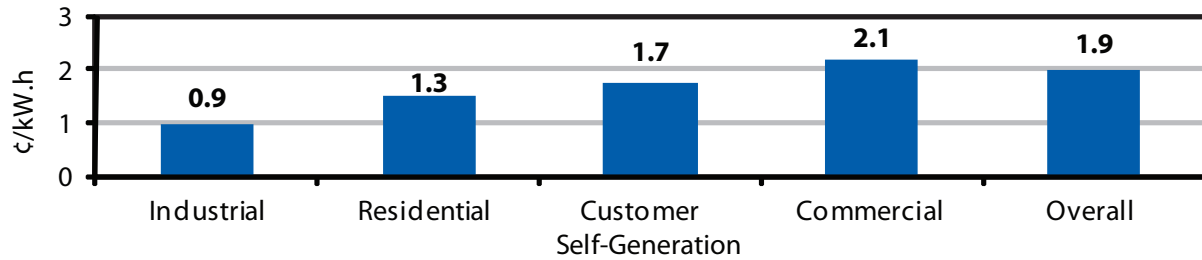


Exhibit 4.4.1.4 - B

Average Levelized Utility Cost at Generation - ¢/kW.h saved by Power Smart Program

	2010/11 Actual	2010/11 Total***	2024/25 Plan^^
	¢/kW.h		
RESIDENTIAL			
Lower Income Energy Efficiency*	2.3	6.3	1.3
Energy Efficient Light Fixtures	1.9	3.6	4.6
New Home	1.6	7.2	0.1
Home Insulation	1.5	2.3	1.9
Compact Fluorescent Lighting	0.9	1.4	1.0
Water & Energy Saver	0.7	1.0	1.8
Refrigerator Recycling	-	-	2.3
Discontinued/Completed Programs	-	0.7	1.0
	1.3	1.4	1.4
COMMERCIAL			
Commercial Network Energy Management	11.9	19.2	1.0
Commercial Clothes Washers	11.2	7.9	4.0
Internal Retrofit	4.2	2.3	8.5
Power Smart Shops	3.7	7.5	3.3
Commercial Kitchen Appliances	2.7	3.5	2.2
Commercial Lighting	2.4	1.4	1.9
City of Winnipeg Agreement Power Smart Agreement	2.3	8.1	0.0
Commercial Building Optimization	1.6	5.4	1.4
Commercial Building Envelope	1.7	2.2	1.2
Commercial Refrigeration	1.3	1.6	1.2
Commercial Custom Measures	1.1	0.8	2.4
Commercial HVAC	1.0	1.4	0.9
Commercial Earth Power	0.9	1.2	1.4
Commercial New Buildings**	n/a	n/a	0.9
Power Smart Energy Manager**	n/a	n/a	2.7
Discontinued/Completed Programs	0.9	0.8	0.4
	2.1	1.5	2.0
INDUSTRIAL			
Performance Optimization	0.8	0.4	1.9
Emergency Preparedness	-	-	4.7
Discontinued/Completed Programs	-	1.1	-
	0.9	0.6	2.5
CUSTOMER SELF-GENERATION PROGRAMS			
Bioenergy Optimization	1.7	1.6	1.9
OVERALL: PROGRAM COSTS	1.6	1.1	2.3
OVERALL: PROGRAM COSTS + SUPPORT COSTS^	1.9	1.4	2.5

* Includes all Affordable Energy Fund expenditures.

** Programs in the start-up phase are not evaluated using the average levelized utility costs metric because the results can be misleading.

*** "Total" values represent the results of the program/portfolio since its inception.

^ Support costs contain customer service initiatives, basic information services and program support costs.

^^ Plan estimates are from the 2010 Power Smart Plan.

Note: Average levelized utility cost analysis is not provided for rate/load management programs.

4.4.2 Power Smart Natural Gas Program Results

The following sections outline the Power Smart program results in terms of natural gas energy savings, benefit/cost analyses and average levelized utility costs.

4.4.2.1 Annual Natural Gas Energy Savings

Natural gas savings achieved by incentive-based Power Smart programs in 2010/11 is displayed by sector and program in Exhibits 4.4.2.1-A and B respectively.

Exhibit 4.4.2.1-B also provides cumulative natural gas savings achieved by incentive-based Power Smart programs.

Exhibit 4.4.2.1 - A
% of Annual Natural Gas Savings by Incentive-Based Programs

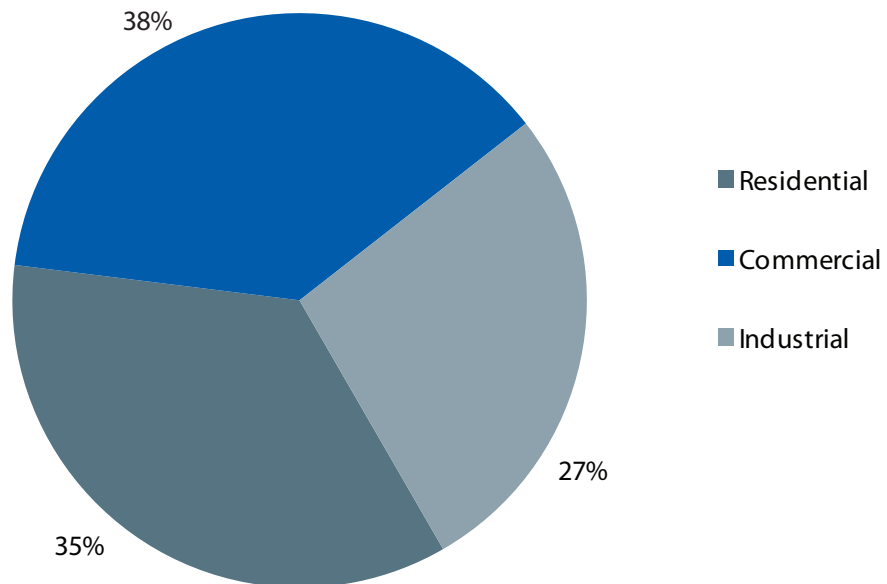


Exhibit 4.4.2.1 - B

Annual Natural Gas Savings - Incentive-Based Programs

	2010/11 Actual	2010/11 Plan [^]	Total*	2024/25 Plan [^]
	<i>millions of cubic metres</i>			
RESIDENTIAL				
Lower Income Energy Efficiency	1.6	1.1	2.3	2.5
Home Insulation**	1.4	1.3	9.0	8.0
Water & Energy Saver	0.8	0.4	0.8	2.7
New Home	0.1	0.1	0.5	4.8
Residential Discontinued/Completed Programs	-	-	7.1	0.2
	4.0	2.8	19.8	18.1
COMMERCIAL				
Commercial Building Envelope	2.5	1.8	6.2	24.6
Commercial HVAC	1.5	1.0	6.2	24.5
Commercial Building Optimization	0.1	0.1	0.4	3.9
Commercial Custom Measures	0.1	0.1	0.2	0.8
City of Winnipeg Power Smart Agreement	0.1	-	0.8	-
Commercial New Buildings	-	0.2	-	6.3
Commercial Kitchen Appliances	-	-	0.1	2.1
Power Smart Shops	-	-	-	0.1
Power Smart Energy Manager	-	-	-	-
Commercial Washers	-	-	-	0.1
Commercial Discontinued/Completed Programs	-	0.1	2.4	-
	4.3	3.3	16.2	62.5
INDUSTRIAL				
Natural Gas Optimization	3.1	1.6	8.0	10.0
Industrial Discontinued/Completed Programs	-	-	-	-
	3.1	1.6	8.0	10.0
EFFICIENCY PROGRAMS SUBTOTAL	11.4	7.7	44.1	90.5
CUSTOMER SELF-GENERATION PROGRAMS				
Bioenergy Optimization	-	-	-	3.6
	-	-	-	3.6
INTERACTIVE EFFECTS WITH ELECTRICITY PROGRAMS				
RESIDENTIAL				
Compact Fluorescent Lighting	(1.7)	(1.7)	(8.2)	-
Refrigerator Recycling	-	(0.2)	-	(0.9)
Energy Efficient Light Fixtures	-	-	(0.2)	-
Lower Income Energy Efficiency	-	-	(0.1)	-
New Home	-	-	-	-
Residential Discontinued/Completed Programs	-	-	0.2	-
	(1.7)	(1.9)	(8.3)	(0.9)
COMMERCIAL				
Commercial Refrigeration	-	0.1	0.4	0.9
Commercial Lighting	(0.2)	(0.2)	(2.3)	(1.5)
Commercial Network Energy Management	-	(0.1)	-	-
Commercial Clothes Washers	-	-	-	-
City of Winnipeg Power Smart Agreement	-	-	(0.1)	-
Power Smart Shops	-	-	-	-
	(0.2)	(0.1)	(2.1)	(0.7)
INTERACTIVE EFFECTS SUBTOTAL	(1.9)	(2.1)	(10.4)	(1.6)
NET IMPACTS				
Residential Programs	2.3	0.9	11.5	17.2
Commercial Program	4.1	3.1	14.1	61.8
Industrial Programs	3.1	1.6	8.0	10.0
Customer Self-Generation Programs	-	-	-	3.6
NET IMPACT OVERALL	9.5	5.6	33.6	92.6

[^] Plan estimates are from the 2010 Power Smart Plan.

* Savings include actual + persisting results., up to and including 2010/11.

** Includes market transformation.

Note: Figures may not add due to rounding.

Power Smart incentive-based efficiency program activity in 2010/11 provided 11.4 million cubic metres of natural gas savings, 48% above plan.

The positive variance of 3.7 million cubic metres can be attributed to the activity of the following Power Smart programs:

Residential:

- The residential sector, which contributed 4.0 million cubic metres in savings, accounted for 35% of total savings in 2010/11, surpassing planned savings of 2.8 million cubic metres by 43%.
- The Lower Income Energy Efficiency Program achieved 1.6 million cubic metres in savings, thereby delivering 45% more savings than planned.
- The Water & Energy Saver Program, in its first year of activity, delivered 0.8 million cubic metres in savings, doubling planned savings.

Commercial:

- The Commercial HVAC Program contributed 1.5 million cubic metres in savings, 50% above plan. This was primarily due to the variance in the program's actual product mix versus plan.
- The Commercial Building Envelope Program contributed 2.5 million cubic metres in savings or 39% above plan. This positive variance can be attributed to changes in the product mix of the Commercial Insulation Program which yielded a greater number of completed projects.
- The New Buildings Program did not claim any

savings in 2010/11, as no projects were completed during the evaluation year. As a result, the program fell 0.2 million cubic metres below plan.

Industrial:

- The Natural Gas Optimization Program contributed 3.1 million cubic metres of natural gas savings or 94% more savings than planned. This positive variance can be attributed to greater than anticipated per-project savings.

Some electric Power Smart programs result in an increase or decrease in natural gas consumption (interactive effects). For example, a more energy efficient lighting system emits less heat, requiring more energy to heat the space. In cases where the heat is produced through electric heating sources, interactive effects are taken into account when calculating the anticipated electricity savings that will result from the program. In cases where the heat is produced through natural gas heating systems, the interactive effects are reported here. These interactive effects represent the increase in natural gas consumption for gas-heated homes from installing energy efficient lighting systems.

In 2010/11, interactive effects increased consumption by 1.9 million cubic metres, reducing integrated incentive-based natural gas savings to 9.5 million cubic metres. Interactive effects were lower than planned by 0.2 million cubic metres.

4.4.2.2 Natural Gas Rate Impact Measure - Benefit/Cost Analysis

Exhibits 4.4.2.2-A and B identify the benefit/cost ratios under the rate impact measure (RIM) test. The calculation of the benefit/cost ratio was based on a 30-year evaluation period. Refer to APPENDIX F- 'Summary of Evaluation & Planning Reports' for further detail of assumptions and the type of calculations

used in evaluating programs. Refer to APPENDIX B - 'Explanation of Benefit/Cost Ratios Used in DSM Economic Tests' for formulas and criteria used to determine cost-effectiveness.

Exhibit 4.4.2.2- A
2010/11 RIM - Natural Gas Incentive-Based Programs

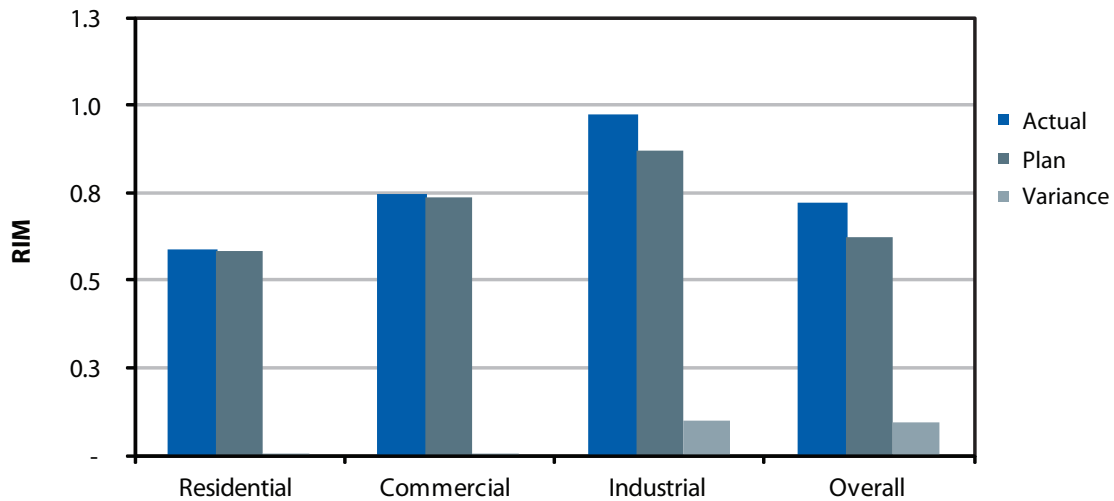


Exhibit 4.4.2.2 - B

Rate Impact Cost Benefit/Cost Analysis - Natural Gas Incentive-Based Program

	2010/11 Actual	2010/11 Plan^^	Total*	2024/25 Plan^^
	<i>RIM</i>			
RESIDENTIAL				
New Home	0.8	0.7	0.7	0.9
Water & Energy Saver	0.7	0.6	0.7	0.7
Home Insulation	0.7	0.7	0.7	0.7
Lower Income Energy Efficiency**	0.6	0.4	0.5	0.4
	0.6	0.6	0.6	0.8
COMMERCIAL				
City of Winnipeg Agreement Power Smart Agreement†	1.0	-	1.0	-
Commercial HVAC	0.8	0.8	0.8	0.9
Commercial Custom Measures	0.7	0.7	0.7	0.7
Commercial Building Envelope	0.7	0.7	0.7	0.7
Commercial Building Optimization	0.6	0.6	0.4	0.7
Commercial Kitchen Appliances	0.7	0.6	0.6	0.9
Power Smart Shops	0.4	0.5	0.3	0.5
Commercial New Buildings	-	0.8	-	0.9
Power Smart Energy Manager	-	-	-	0.6
	0.7	0.7	0.8	0.8
INDUSTRIAL				
Natural Gas Optimization	1.0	0.9	1.0	0.9
DISCONTINUED/COMPLETED PROGRAMS	0.7	0.9	0.7	0.9
CUSTOMER SELF-GENERATION				
Bioenergy Optimization	-	0.3	-	0.9
OVERALL: PROGRAM COSTS	0.7	0.7	0.7	0.8
OVERALL: PROGRAM COSTS incl. INTERACTIVE EFFECTS	0.7	0.7	0.7	0.7
OVERALL: PROGRAM COSTS + SUPPORT COSTS incl. INTERACTIVE EFFECTS^	0.7	0.6	0.7	0.7

^ Support costs contain customer service initiatives, basic information services and program support costs.

^^ Plan estimates are from the 2010 Power Smart Plan.

* "Total" values represent the results of the program/portfolio since its inception.

** Includes all apportioned Affordable Energy Fund (AEF) and Furnace Replacement Program (FRP) expenditures. LIEEP's 'Actual' RIM, including apportioned AEF, without FRP was 0.6. LIEEP's 'Actual' RIM, with FRP only was 0.4.

† Includes only natural gas bill reduction costs. All other costs were accounted for within electric cost elements.

4.4.2.3 Natural Gas Average Levelized Utility Costs - ¢/m³ Saved

Exhibits 4.4.2.3-A and B highlight the average levelized utility cost of incentive-based programs implemented prior to 2010/11 in ¢/m³. The calculation of ¢/m³ saved was based upon current program natural gas savings over a 30-year evaluation period. Refer to APPENDIX E - 'Summary of Evaluation & Planning Reports' for further

details of assumptions and of the types of calculations used in evaluating programs. The utility costs presented do not include costs associated with future Power Smart incentive-based programs, customer service initiatives, standards activities or the customer costs of demand side management measures.

Exhibit 4.4.2.3 - A
2010/11 Levelized Utility Cost (¢/m³)

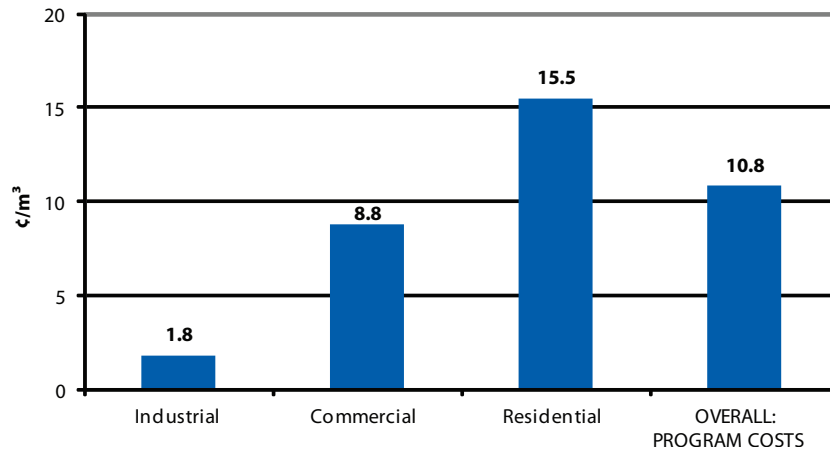


Exhibit 4.4.2.3 - B

Average Levelized Utility Cost - ¢/m³ saved by Power Smart Program

	2010/11 Actual	2010/11 Total***	2024/25 Plan^^
		¢/m ³	
RESIDENTIAL			
Lower Income Energy Efficiency*	26.5	38.9	6.7
Home Insulation	10.5	9.6	13.6
Water & Energy Saver	7.9	8.4	16.0
New Home	6.6	9.2	0.2
	15.5	11.7	8.2
COMMERCIAL			
Power Smart Shops	41.7	66.8	30.6
Commercial Building Optimization	22.3	40.6	14.8
Commercial Custom Measures	15.6	13.6	15.4
Commercial Kitchen Appliances	10.7	20.4	3.7
Commercial Building Envelope	9.4	9.8	10.7
Commercial HVAC	6.0	5.9	3.0
Commercial New Buildings**	n/a	n/a	3.0
Power Smart Energy Manager**	n/a	n/a	23.1
	8.8	8.1	7.2
INDUSTRIAL			
Natural Gas Optimization	1.8	2.2	5.9
DISCONTINUED/COMPLETED PROGRAMS			
	10.0	8.1	0.4
OVERALL: PROGRAM COSTS			
	9.2	8.7	9.4
OVERALL: PROGRAM COSTS incl. INTERACTIVE EFFECTS†			
	9.8	9.9	10.0
OVERALL: PROGRAM COSTS + SUPPORT COSTS incl. INTERACTIVE EFFECTS^			
	10.8	12.3	11.9

* Includes all apportioned Affordable Energy Fund (AEF) and Furnace Replacement Program (FRP) expenditures. LIEEP's 'Actual' levelized utility cost, including apportioned AEF, without FRP was 18.6 ¢/m³. LIEEP's 'Actual' levelized utility cost with FRP only was 40.1 ¢/m³.

** Programs in the start-up phase are not evaluated using the average levelized utility costs metric because the results can be misleading.

*** "Total" values represent the results of the program/portfolio since its inception.

^ Support costs contain customer service initiatives, basic information services and program support costs.

^^ Plan estimates are from the 2010 Power Smart Plan.

† Increased or decreased natural gas benefits resulting from electric incentive-based programs have been included in the overall calculation.

4.4.3 Power Smart Combined Electric & Natural Gas Program Results

Total Resource Cost - Benefit/Cost Analysis

Exhibits 4.4.3-A and B show the combined electricity and natural gas benefit/cost analysis results under the total resource cost (TRC) test by program.

The calculation of the benefit/cost ratio was based on a 30-year evaluation period.

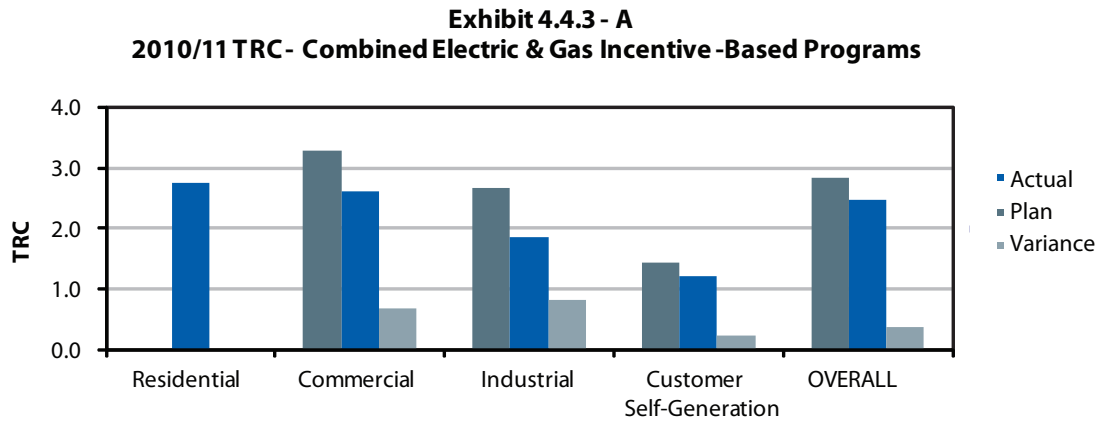


Exhibit 4.4.3 - B

Total Resource Cost Benefit Analysis - Combined Electric & Gas Incentive-Based Program

	2010/11 Actual	2010/11 Plan^^	Total****	2024/25 Plan^^
<i>TRC</i>				
RESIDENTIAL				
Water & Energy Savert	11.8	4.6	10.0	5.9
Compact Fluorescent Lighting**	10.1	5.3	4.2	5.6
Energy Efficient Light Fixtures**	3.8	1.6	1.8	1.6
Home Insulation**	3.1	3.3	2.9	3.1
New Home	1.7	1.5	1.1	1.6
Lower Income Energy Efficiency*†	1.0	1.7	0.8	2.5
Refrigerator Recycling	-	1.1	-	1.2
	2.7	2.8	2.4	2.5
COMMERCIAL				
City of Winnipeg Agreement Power Smart Agreement***	16.9	9.6	1.5	10.9
Commercial Building Envelope	4.1	2.4	3.3	2.3
Commercial Refrigeration	4.0	3.5	3.8	4.4
Commercial Kitchen Appliances†	3.8	3.6	4.0	3.5
Commercial HVAC**	3.5	2.9	3.2	3.4
Commercial Earth Power**	3.5	2.8	2.0	2.9
Commercial Lighting	3.2	2.9	2.4	2.8
Commercial Building Optimization	2.1	2.0	0.8	2.8
Power Smart Shopst	2.1	2.9	1.2	3.3
Commercial Custom Measures	2.0	2.0	1.6	2.0
Internal Retrofit	1.8	1.3	2.4	1.0
Commercial Clothes Washer†	1.2	2.1	1.7	2.3
Commercial Network Energy Management	0.4	2.3	0.2	2.7
Commercial New Buildings	-	4.3	-	5.3
Power Smart Energy Manager	-	-	-	1.2
	3.3	2.6	2.4	2.7
INDUSTRIAL				
Performance Optimization	3.1	2.4	3.5	2.5
Natural Gas Optimization	2.2	1.4	2.4	1.4
Emergency Preparedness	-	-	-	2.7
	2.7	1.8	3.3	2.3
DISCONTINUED/COMPLETED PROGRAMS**†				
	6.0	5.6	2.4	5.3
CUSTOMER SELF-GENERATION PROGRAMS				
Bioenergy Optimization	1.4	1.2	1.4	2.0
	1.4	1.2	1.4	2.0
OVERALL: PROGRAM COSTS				
	2.8	2.5	2.5	2.6
OVERALL: PROGRAM COSTS + SUPPORT COSTS^				
	2.6	2.3	2.2	2.2

* Includes all Affordable Energy Fund expenditures.

** Includes market transformation.

*** Includes the present value of projected future commitment payment receipts.

**** "Total" values represent the results of the program/portfolio since its inception.

† Includes water savings benefits.

^ Support costs contain customer service initiatives, basic information services and program support costs.

^^ Plan estimates are from the 2010 Power Smart Plan.

Note: Increased or decreased natural gas benefits resulting from electric incentive-based programs have been included in the overall calculation. Benefit/cost analysis is not calculated for rate/load management programs.

For 2010/11, the combined overall TRC benefit/cost ratio including support costs was 2.6, which is above the planned target. Results indicate that all evaluated Power Smart programs, with the exception of the Commercial

Network Energy Management Program, were cost-effective under the TRC test in 2010/11.

5.0 Total Power Smart Utility Costs

Total utility costs include all costs incurred by the utility in the planning, development, design, implementation and evaluation of the Power Smart programs.

Program costs are costs attributed to a specific program and include program administration costs and incentive costs, while support costs are costs of activities supporting Power Smart programs which cannot be wholly assigned to any one specific program. These

costs include activities such as Power Smart promotions (general branding), promoting sustainability and standards and demand side management administration (overall planning and evaluation). Support costs also include costs attributed to running customer service initiative programs and the basic information portions of the efficiency programs.

5.1 Summary of Total Power Smart Utility Costs

Exhibit 5.1 summarizes the utility costs of the programs cumulative to 2010/11. The reported utility costs cumulative to 2010/11 are presented in nominal dollars

and detail actual accounting expenditures to 2010/11 for all Power Smart initiatives and activities.

Exhibit 5.1

Summary of Utility Costs Cumulative to 2010/11

UTILITY COSTS	Cumulative
	<i>millions of nominal dollars</i>
TOTAL UTILITY COSTS	
Program Cost	313.9
Support Cost	63.8
	377.7
TOTAL UTILITY COSTS	377.7

Note: Support costs include both customer service initiatives and support activity costs. As of April 1, 2004, natural gas programs were added to the Power Smart portfolio. Figures may not add due to rounding.

As of March 31st, 2011, Manitoba Hydro had invested nearly \$378 million in Power Smart. The highest component of this expenditure was the program

utility costs at \$314 million, which is 83% of the total expenditures cumulative to 2010/11.

5.2 Utility Costs by Program

Exhibits 5.2-A and B outline the costs to the utility for April 1st, 1989 and March 31st, 2011. Power Smart programs implemented between

Exhibit 5.2 - A

Utility Costs for Support, Basic Information Services, Customer Service Initiatives & Standards

	Actual 2010\$	Cumulative nominal \$
	thousands of dollars	
CUSTOMER SERVICE INITIATIVES		
<i>Customer Service Initiatives & Standards Electric Cost</i>	166	2,263
<i>Customer Service Initiatives & Standards Natural Gas Cost</i>	-320	2,422
	-153	4,685
BASIC INFORMATION SERVICES		
<i>Basic Information Services Electric Cost</i>	1,374	17,484
<i>Basic Information Services Gas Cost</i>	363	4,061
	1,737	21,546
Discontinued/Completed Basic Information Services		
<i>Discontinued/Completed Basic Information Services Electric Cost</i>	1	2,885
<i>Discontinued/Completed Basic Information Services Gas Cost</i>	-	20
	1	2,905
SUPPORT COSTS		
Power Smart Communications		
<i>Power Smart Communications Electric Cost</i>	794	14,127
<i>Power Smart Communications Natural Gas Cost</i>	529	3,284
	1,323	17,410
Residential Retrofit		
<i>Residential Retrofit Electric Cost</i>	52	419
<i>Residential Retrofit Natural Gas Cost</i>	96	676
	147	1,095
Retrofit Demonstrations		
<i>Retrofit Demonstrations Electric Cost</i>	-	48
<i>Retrofit Demonstrations Natural Gas Cost</i>	-	80
	-	128
Integrated Plan/Targets		
<i>Integrated Plan/Targets Electric Cost</i>	166	3,318
<i>Integrated Plan/Targets Natural Gas Cost</i>	111	653
	277	3,971
DSM Administration		
<i>DSM Administration Electric Cost</i>	220	3,640
<i>DSM Administration Natural Gas Cost</i>	146	899
	366	4,540
DSM Tracking System		
<i>DSM Tracking System Electric Cost</i>	80	455
<i>DSM Tracking System Natural Gas Cost</i>	53	76
	133	532
Commercial Audits		
<i>Commercial Audits Electric Cost</i>	-	133
<i>Commercial Audits Natural Gas Cost</i>	1	48
	1	181
Energy Efficiency Screening Studies		
<i>Energy Efficiency Screening Studies Electric Cost</i>	34	47
<i>Energy Efficiency Screening Studies Gas Cost</i>	34	43
	69	90
Power Smart Residential Support		
<i>Power Smart Residential Support Electric Cost</i>	53	81
<i>Power Smart Residential Support Gas Cost</i>	79	121
	132	202
Sustainabilities & Standards		
<i>Sustainabilities & Standards Electric Cost</i>	166	590
<i>Sustainabilities & Standards Natural Gas Cost</i>	111	692
	277	1,282
Power Smart for Business		
<i>Power Smart for Business Electric Cost</i>	158	1,416
<i>Power Smart for Business Natural Gas Cost</i>	158	665
	317	2,081
Discontinued/Completed Support Costs		
<i>Discontinued/Completed Support Costs Electric Cost</i>	-	3,157
<i>Discontinued/Completed Support Costs Natural Gas Cost</i>	-	-
	-	3,157
<i>Total Support Costs, CSI & Standards Electric Cost</i>	3,264	50,064
<i>Total Support Costs, CSI & Standards Gas Cost</i>	1,362	13,740
TOTAL SUPPORT COSTS, CUSTOMER SERVICE INITIATIVES & STANDARDS	4,626	63,804

Exhibit 5.2 - B

Utility Cost of Programs

	Actual 2010\$	Cumulative nominal \$
	<i>thousands of dollars</i>	
EFFICIENCY PROGRAMS		
RESIDENTIAL		
Home Insulation		
<i>Home Insulation Electric Cost</i>	1,365	11,032
<i>Home Insulation Natural Gas Cost</i>	2,230	13,083
	3,595	24,115
New Home		
<i>New Homes Electric Cost</i>	210	4,613
<i>New Homes Natural Gas Cost</i>	108	592
	318	5,205
High Efficiency Furnace/Boiler (Natural Gas)	26	8,624
Compact Fluorescent Lighting	1,004	7,285
Energy Efficient Light Fixtures	243	1,323
Energy Efficient Appliances	12	5,550
Lower Income Energy Efficiency		
<i>First Nations</i>	57	122
<i>Lower Income Energy Efficiency Electric Cost</i>	131	726
<i>Lower Income Energy Efficiency Natural Gas Cost</i>	791	1,936
	980	2,783
Water & Energy Saver		
<i>Water & Energy Saver Electric Cost</i>	457	613
<i>Water & Energy Saver Gas Cost</i>	686	726
	1,143	1,340
Refrigerator Retirement		
	80	233
Residential Exploratory Programs		
<i>Residential Exploratory Programs Electric Cost</i>	4	24
<i>Residential Exploratory Programs Gas Cost</i>	7	7
	11	31
Discontinued/Completed Residential Programs Costs		
<i>Discontinued/Completed Residential Programs Electric Cost</i>	-	3,033
<i>Discontinued/Completed Residential Programs Gas Cost</i>	-	334
	-	3,367
<i>Total Residential Program Electric Cost</i>	3,568	34,559
<i>Total Residential Program Gas Cost</i>	3,849	25,302
RESIDENTIAL EFFICIENCY PROGRAM SUBTOTAL	7,417	59,855

Exhibit 5.2 - B (Continued)

Utility Cost of Programs

	Actual 2010\$	Cumulative nominal \$
	<i>thousands of dollars</i>	
COMMERCIAL		
Commercial Custom Measures		
Commercial Custom Measures Electric Cost	230	2,449
Commercial Custom Measures Natural Gas Cost	154	385
	384	2,834
Commercial Insulation		
Commercial Insulation Electric Cost	260	1,470
Commercial Insulation Natural Gas Cost	2,212	5,256
	2,471	6,726
Commercial Windows		
Commercial Windows Electric Cost	1,214	3,826
Commercial Windows Natural Gas Cost	1,000	2,812
	2,215	6,638
Commercial Parking Lot Controllers	529	6,152
Commercial Earth Power	298	3,931
Commercial HVAC		
Commercial HVAC Electric Cost	313	1,534
Commercial HVAC Natural Gas Cost	1,227	5,959
	1,540	7,494
Commercial CO2 Sensors		
Commercial CO2 Sensors Electric Cost	2	4
Commercial CO2 Sensors Gas Cost	32	69
	33	73
Internal Retrofit*	1,848	28,030
Commercial Lighting	6,650	61,548
Agricultural Heat Pads	99	985
City of Winnipeg Power Smart Agreement	79	10,697
Commercial Refrigeration	170	1,308
Commercial Rinse & Save		
Commercial Rinse & Save Electric Cost	5	93
Commercial Rinse & Save Natural Gas Cost	21	355
	26	447
Commercial Building Optimization		
Commercial Building Optimization Electric Cost	36	367
Commercial Building Optimization Natural Gas Cost	205	1,100
	241	1,467
Power Smart Energy Manager		
Power Smart Energy Manager Electric Cost	65	346
Power Smart Energy Manager Natural Gas Cost	43	334
	109	679
Commercial New Buildings		
Commercial New Buildings Electric Cost	290	698
Commercial New Buildings Natural Gas Cost	193	509
	483	1,207
Commercial Clothes Washers	64	321
Commercial Kitchen Appliances		
Commercial Kitchen Appliances Electric Cost	36	216
Commercial Kitchen Appliances Natural Gas Cost	29	141
	65	357
Power Smart Shops		
Power Smart Shops Electric Cost	142	445
Power Smart Shops Natural Gas Cost	95	191
	237	636
Commercial Network Energy Management	83	173
Commercial Exploratory Programs		
Commercial Exploratory Programs Electric Cost	-	-
Commercial Exploratory Programs Gas Cost	35	57
	35	57
Discontinued/Completed Commercial Programs		
Discontinued/Completed Commercial Programs Electric Cost	-	8,797
Discontinued/Completed Commercial Programs Gas Cost	-	-
	-	8,797
Total Commercial Program Electric Cost	12,414	133,387
Total Commercial Program Gas Cost	5,245	17,169
COMMERCIAL EFFICIENCY PROGRAM SUBTOTAL	17,659	150,557

Exhibit 5.2 - B (Continued)

Utility Cost of Programs

	Actual 2010\$	Cumulative nominal \$
	<i>thousands of dollars</i>	
INDUSTRIAL		
Performance Optimization	2,768	25,982
Natural Gas Optimization	700	2,098
Emergency Preparedness	7	158
	3,475	28,237
Industrial Exploratory Programs		
<i>Industrial Exploratory Programs Electric Cost</i>	-	-
<i>Industrial Exploratory Programs Gas Cost</i>	-	-
	-	-
Discontinued/Completed Industrial Programs		
<i>Discontinued/Completed Industrial Programs Electric Cost</i>	-	2,708
<i>Discontinued/Completed Industrial Programs Gas Cost</i>	-	-
	-	2,708
<i>Total Industrial Program Electric Cost</i>	2,775	28,847
<i>Total Industrial Program Gas Cost</i>	700	2,098
INDUSTRIAL EFFICIENCY PROGRAM SUBTOTAL	3,475	30,945
EFFICIENCY PROGRAM COSTS		
<i>Total Efficiency Program Electric Cost</i>	18,757	196,793
<i>Total Efficiency Program Gas Cost</i>	9,794	44,569
EFFICIENCY PROGRAM SUBTOTAL	28,551	241,362
CUSTOMER SELF-GENERATION		
Bioenergy Optimization		
<i>Bioenergy Optimization Electric Cost</i>	1,605	8,131
<i>Bioenergy Optimization Natural Gas Cost</i>	-	112
	1,605	8,243
RATE/LOAD MANAGEMENT PROGRAMS		
Curtailable Rates	5,741	64,304
	5,741	64,304
TOTAL PROGRAM COSTS		
<i>Total Program Electric Cost</i>	26,103	269,228
<i>Total Program Gas Cost</i>	9,794	44,681
TOTAL PROGRAM COSTS	35,897	313,909

Note: As of April 1st, 2004, natural gas programs were added to the Power Smart portfolio. Figures may not add due to rounding.

5.3 Utility Costs by Energy Source

Exhibit 5.3

Summary of Electric & Natural Gas Utility Costs

	Actual 2010\$	Cumulative nominal \$
	<i>millions of dollars</i>	
ELECTRIC		
Program Cost	26.1	269.2
Support Cost	3.3	50.1
	29.4	319.3
NATURAL GAS		
Program Cost	9.8	44.7
Support Cost	1.4	13.7
	11.2	58.4
TOTAL UTILITY COSTS (ELECTRIC + NATURAL GAS)	40.5	377.7

Note: Support costs include both customer service initiatives and support activity costs.

Total Power Smart electric initiatives represent 73% of total Power Smart Expenditures in 2010/11 and 85% of cumulative Power Smart expenditures to date.

5.4 The Affordable Energy Fund

The Affordable Energy Fund was established during 2006/07 through the Winter Heating Cost Control Act and it supports Manitoba Hydro's sustainable development initiatives. The purpose of the fund is to provide support for programs and services that achieve specific objectives including encouraging energy efficiency and conservation through programs

and services for rural and northern Manitobans, lower income customers and seniors and encouraging the use of alternative energy sources such as renewable energy.

Exhibit 5.4 provides a summary of Affordable Energy Fund expenditures.

Exhibit 5.4

Summary of Affordable Energy Fund Expenditures

	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative
	<i>thousands of nominal dollars</i>					
Lower Income Expenditures						
Lower Income/Community Based Initiative	256	219	893	1,672	2,666	5,706
Community Support and Outreach	-	-	35	130	133	299
	256	219	928	1,802	2,799	6,004
Support Expenditures						
Geothermal Support	619	270	92	104	108	1,193
Oil and Propane Heated Residential Homes	-	75	85	31	32	222
Special Projects						
<i>Residential Energy Assessment Service</i>	-	61	241	85	119	506
<i>Oil and Propane Furnace Replacement</i>	-	-	6	36	42	84
<i>Solar Water Heating</i>	-	-	89	119	56	264
<i>Power Smart Residential Loan</i>	-	-	-	130	312	442
	619	406	513	506	669	2,712
Community Energy Development	-	-	-	750	-	750
TOTAL EXPENDITURES	875	625	1,441	3,058	3,468	9,466

5.5 Lower Income Furnace Replacement Budget

The Lower Income Furnace Replacement Budget was established during 2007/08 as a result of Public Utility Board Order 99/07. The purpose of the budget is to establish and administer a natural gas Furnace Replacement Program for lower income customers.

In 2010/11 alone, customers installed 445 furnaces and

16 boilers through the Furnace Replacement Program. Cumulatively, 1,233 furnaces and 30 boilers have been installed to the end of 2010/11 as a result of the program.

Exhibit 5.5 outlines the Lower Income Furnace Replacement Expenditures.

Exhibit 5.5

Summary of Lower Income Furnace Replacement Budget Expenditures

	2008/09	2009/10	2010/11	Cumulative
	<i>thousands of nominal dollars</i>			
Natural Gas Furnace Replacement	264	815	1,312	2,391
TOTAL EXPENDITURES	264	815	1,312	2,391

Appendix A

Sources of Evaluation & Planning Estimates

Many sources are used to estimate load savings and utility costs resulting from the Power Smart programs.

These include:

Evaluation Estimate Sources

Impact Evaluation Reports:

Impact evaluation reports are prepared for the Power Smart programs to identify net program load savings and costs, as well as the cost-effectiveness of these savings.

Net savings and costs differ from gross savings and costs as they take into consideration factors such as free riders, free drivers, heating/cooling interactive effects and persistence.

A number of variables potentially affect the cost-effectiveness of Power Smart programs. These variables are energy, demand and natural gas reduction; hours of operation; measure persistence; average measure life, measure reinvestment and changes in marginal cost values.

Planning Estimate Sources

2010/11 Electric Planning Estimates:

The 2010/11 electric planning estimates were taken from the 2010 Power Smart Plan.

In all cases, the 2010 Power Smart Plan estimates were used regardless of delays in program launches or modifications. Consistent usage of the same plan helps reduce the probability of errors and provides a verifiable public target to compare against. Utilizing the same source information also helps ensure that a realistic and objective evaluation of the programs/portfolio is conducted, and improves the reliability and verifiability of the Power Smart Annual Review.

Life-to-Date Expenditure Report:

The utility costs cumulative to 2010/11 are tracked annually from the Annual DSM Expenditure Report.

Engineering Estimates:

Engineering expertise is used to quantify usage and savings data. Computer simulation and modeling may also be used.

Sales & Market Data:

In-depth market knowledge, product specifications and ratings, sales and replacement data, etc. are used to determine market acceptance and uptake.

2010/11 Natural Gas Planning Estimates:

The 2010/11 natural gas planning estimates were taken from the 2010/11 Power Smart Plan.

In all cases the 2010/11 Power Smart Plan estimates were used regardless of delays in program launches and modifications. Consistent usage of the same plan helps reduce the probability of errors and provides a verifiable public target to compare against. Utilizing the same source information also helps ensure that a realistic and objective evaluation of the programs/portfolio is conducted, and improves the reliability and verifiability of the Power Smart Annual Review.

2024/25 Planning Estimates:

The 2024/25 electric planning targets for energy and demand savings are from the 2010 Power Smart Plan report which includes forecasts for 2010/11 through to 2024/25. The 1992/93 through to 2009/10 planning estimates for energy and demand savings are from the respective Power Smart Resource Options reports or Power Smart Plan. Electric long range planning targets did not exist prior to 1992/93.

The 2024/25 natural gas planning targets are from the approved DSM option in the 2010 Power Smart Plan report which includes forecasts for 2010/11 through to 2024/25. Natural gas long range planning targets did not exist prior to 2005/06.

The 2010/11 to 2024/25 planning estimates for utility costs are included in the Integrated Financial Forecast report current during the evaluation year (IFF10-1). The planning estimates for the years 1990/91 through 2009/10 are included in the following Integrated Financial Forecast reports: IFF90-4, IFF91-4, IFF92-4,

IFF93-3, IFF94-2, IFF95-1, IFF96-1, IFF97-1, IFF98-1, IFF99-1, IFF00-1, IFF01-1, IFF02-1, IFF03-1, IFF04-1, IFF05-1, IFF06-1, IFF07-1, IFF08-1 and IFF09-1.

The 2010/11 planning estimates are from the 2010 Power Smart Plan report.

Appendix B

Explanation of Benefit/Cost Ratios Used in DSM Economic Tests

Total Resource Cost (TRC) Test

The Total Resource Cost (TRC) test is used to assess the benefits of an energy efficiency program irrespective of who realizes the benefits and who pays the costs. Any economic

transfers between Manitoba Hydro and the participating customer are excluded from the calculation.

The TRC is calculated based on the following formula:

$$\text{TRC} = \frac{\text{PV (Marginal Benefit)}}{\text{PV (Total Program Administration + Incremental Product Cost)}}$$

Where:

- For electricity, the marginal benefit includes the revenue realized by Manitoba Hydro from conserved electricity being sold in the export market, the avoided cost of new infrastructure (i.e. electric transmission facilities) and measurable non-energy benefits (i.e. water savings).
- For natural gas, the marginal benefit includes Manitoba Hydro's avoided cost of purchasing natural gas, avoided transportation costs, the value of reduced greenhouse gas emissions and measurable non-energy benefits (i.e. water savings).
- Total program administration costs include the administrative costs involved in program planning, design, marketing, implementation and evaluation. It includes all costs associated with offering the Power Smart program except for customer incentive costs.
 - o Note: The City of Winnipeg Power Smart Agreement evaluation treated commitment payments paid by Manitoba Hydro as administration costs. Projected future commitment payment cash inflows to Manitoba Hydro were netted against commitment payments made to the City of Winnipeg.
- Incremental product costs include the total incremental costs associated with implementing a Power Smart measure. It is the difference in costs between the energy efficient technology and the standard technology that would have been installed in the absence of the

Rate Impact Measure (RIM) Test

The Rate Impact Measure (RIM) test is used to provide an indication of the long term impact of an energy efficiency program on energy rates. The test indicates the cost-effectiveness of a program from the ratepayer's

perspective. All program-related savings and costs incurred by the utility, including revenue loss and incentive payments, are taken into account.

The RIM is calculated based on the following formula:

$$\text{RIM} = \frac{\text{PV (Utility Marginal Benefit)}}{\text{PV (Revenue Loss + Utility Program Administration Costs + Incentives)}}$$

Where:

- For electricity, the utility marginal benefit includes the revenue realized by Manitoba Hydro from conserved electricity being sold in the export market and the avoided cost of new infrastructure (i.e. electric transmission facilities).
- For natural gas, the utility marginal benefit includes Manitoba Hydro's avoided cost of purchasing natural gas, avoided transportation costs and the value of reduced greenhouse gas emissions.
- Revenue loss includes Manitoba Hydro's lost revenue associated with the participants' reduced energy consumption (i.e. customer bill reductions).
- Utility program administration costs include the costs to Manitoba Hydro associated with program planning, design, marketing, implementation and evaluation. It includes all costs associated with offering the Power Smart program except for customer incentive costs.
- Incentives include the funds transferred from Manitoba Hydro to the participant associated with implementing the Power Smart measure.

Levelized Utility Cost (LUC)

The Levelized Utility Cost (LUC) is used to provide an economic cost value for the energy saved through an energy efficiency program. The LUC provides the total cost of the conserved energy on a per unit basis levelized over a fixed time period. The cost value allows for a

comparison to other supply options and other DSM programs occurring over different time frames.

The LUC is calculated based on the following formula:

$$\text{LUC} = \frac{\text{PV (Utility Program Administration Costs + Incentives)}}{\text{PV (Energy)}}$$

Where:

- Utility program administration costs include the costs to Manitoba Hydro associated with program planning, design, marketing, implementation and evaluation. It includes all costs associated with offering the Power Smart program except for customer incentive costs.
- Incentives include the funds transferred from Manitoba Hydro to the participant associated with implementing the Power Smart measure.
- Energy includes the annual energy savings associated with the energy efficiency measure.

Appendix C

Total Power Smart Participation

Power Smart Participants- Annual Increments+†	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative	
Residential																								
Residential CSI																								
Home Comfort & Energy Savings Program																								
Power Smart Residential Loan Program																								
Mail In On-Line Energy Assessments																								
Home Comfort & Energy Savings Program Subtotal																								
ENERGY Program																								
WSE Home Program																								
R2000 Component of the New Home Program ⁸																								
Residential Earth Power Program																								
Residential Earth Power Loan																								
Energy Savings Incentives																								
New Windows Programs																								
Solar Water Heating																								
Residential CSI SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	6,261	7,033	9,897	12,500	14,952	14,101	11,947	13,932	14,889	9,491	114,103	
Residential CSI Discontinued/Completed Programs																								
Residential Earth Power Program																								
Earth Power Consumer Workshops																								
Residential CSI Discontinued/Completed Programs																								
RESIDENTIAL CSI TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	6,261	7,033	9,897	12,650	15,427	14,164	11,947	13,932	14,889	9,491	114,791	
Residential Incentive-Based Programs																								
New Home Program																								
Home Insulation Program																								
Compact Fluorescent Lighting Program																								
Energy Efficient Light Fixtures Program																								
Water & Energy Saver Program																								
Lower Income Energy Efficiency Program																								
Residential Incentive-Based Programs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	221,158	28,168	23,771	36,207	80,860	106,957	123,562	
Residential Incentive-Based Discontinued/Completed Programs																								
Programmable Thermostat Program																								
Outdoor Timer																								
Refrigerator Freezer Buy-Back Pilot	6,169	8,954	8,134	4,812	4,160																			
Energy Efficient Appliances			474																					
Seasonal LED Program																								
Water & Energy Saver Program																								
High Efficiency Furnace/B Boiler Program																								
Residential Incentive-Based Discontinued/Completed Programs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,128	32,230	32,440	25,528	7,641	0	196,261	
Residential Incentive-Based TOTAL	6,169	8,954	8,608	4,812	4,160																			196,261
Residential TOTAL	6,169	8,954	8,608	4,812	4,160								6,261	7,033	9,897	34,808	46,723	71,165	80,594	119,920	128,987	133,653	672,735	
Commercial																								
Commercial CSI																								
Religious Buildings Initiative																								
Power Smart Recreation Facility Survey																								
Commercial CSI SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Commercial CSI Discontinued/Completed Programs																								
Power Smart Energy Manager																								
Commercial CSI Discontinued/Completed Programs																								
Commercial CSI TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative
Power Smart Participants-Annual Increments*																							
Commercial Incentive-Based Programs																							
Commercial Custom Measures**																							
Building Envelope																							
Commercial HVAC																							
Internal Controls ¹																							
Lighting Programs																							
Building Control Programs																							
Commercial Earth Power Program																							
Commercial Refrigeration																							
Commercial Refrig. Agreement ²																							
Power Smart Energy Manager Program																							
Commercial Kitchen Appliances																							
Commercial Clothes Washers																							
New Buildings Program																							
Network Energy Manager Program																							
Power Smart Shops																							
Commercial Incentive-Based Programs SUBTOTAL	0	0	0	137	649	577	518	288	284	444	215	174	194	243	409	888	1,570	1,382	1,491	1,796	2,237	2,074	15,570
Commercial Incentive-Based Discontinued/Completed Programs																							
Sentinel Lighting Conversion																							
Roadway Lighting																							
Commercial Construction & Renovation ³																							
Livestock/Water																							
Agricultural Demand Controller																							
Water Cams																							
Spray Valves																							
Parking Lot Controllers																							
Agricultural Heat Pads																							
Commercial Incentive-Based Discontinued/Completed Programs SUBTOTAL	0	0	65	136	1,310	161	57	46	41	40	54	42	56	76	88	102	232	914	504	317	244	175	4,651
Commercial Incentive-Based TOTAL	0	0	65	273	1,959	738	575	334	325	484	269	216	250	319	497	990	1,802	2,296	1,995	2,113	2,481	2,249	20,221
Commercial TOTAL	0	0	65	273	1,959	738	575	334	325	484	269	234	304	350	528	1,008	1,840	2,304	2,041	2,136	2,491	2,256	20,565
Industrial																							
Industrial Incentive-Based Programs																							
Performance Optimization Program ⁴																							
Natural Gas Optimization Program																							
Industrial Incentive-Based Programs																							
Industrial Incentive-Based Discontinued/Completed Programs																							
High Efficiency Motor ⁵																							
Industrial Incentive-Based Discontinued/Completed Programs																							
Customer Self Generation Programs																							
Bioenergy Optimization Program																							
Customer Self Generation Programs																							
Rate Load Management Programs																							
Rate Load Management Programs																							
Industrial TOTAL	0	0	24	157	202	229	185	182	195	8	4	9	17	25	32	48	50	49	81	99	116	90	1,802
CSI PROGRAMS ACTIVE & DISCONTINUED/COMPLETED SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCENTIVE PROGRAMS ACTIVE & DISCONTINUED/COMPLETED SUBTOTAL	6,169	8,954	8,697	5,242	6,321	967	760	717	1,229	1,173	273	225	267	344	529	23,196	33,146	59,346	70,723	108,600	117,195	125,591	579,987
ALL PROGRAMS ACTIVE & DISCONTINUED/COMPLETED TOTAL	6,169	8,954	8,697	5,242	6,321	967	760	717	1,229	1,173	273	243	6,572	7,408	10,457	35,864	46,613	73,578	82,716	122,155	131,594	135,399	695,102

* Participation is measured by completed projects and excludes free riders, free drivers and market transformation.
¹ Customers may participate in more than one Power Smart Program.
² The program offering in-home energy assessments prior to 2007/08 was known as the EnerGuide for Houses program.
³ Starting in 2004/05 the R2000 Program was grouped into the Power Smart New Home Program.
⁴ Power Smart Energy Manager Program participation is measured by schools that joined the program in 2000/01 participated for 4 years and schools that joined in 2002/03 participated for 2 years.
⁵ Annual participation represents the number of customers who participate each year. Since most customers participate year after year, the cumulative number represents the actual number of customers who have participated to date.
⁶ Formerly known as the Home Energy Saver Workshop.
⁷ A summation of annual participation columns will not necessarily correspond with the total participation to date. This is a result of the Curtable Rates Program participation (see footnote v).
⁸ Note: Participation in the CFL Program is defined as 1 household.

Appendix D

Synopsis of Discontinued Power Smart Incentive-Based Programs

Residential Programs

Outdoor Timer

This program encouraged the use of outdoor timers to control block heaters and interior car warmers at existing homes.

Refrigerator/Freezer Buy-Back Pilot

This pilot program encouraged the removal of older, inefficient second refrigerators and freezers in existing homes.

Residential Showerhead Pilot

This pilot program encouraged the installation of energy efficient showerheads in existing homes.

Energy Efficient Water Saving Measures Component of the “No Worry Plan”

This program encouraged participants of the “No Worry Plan” Hot Water Tank Program to install energy saving devices (faucet aerators, heat traps, energy efficient shower heads, pipe wrap) as part of a bonus package when installing new water tanks.

Energy Efficient Water Tank Measures Component of the “No Worry Plan”

This program encouraged residential customers with electric hot water heaters to purchase, finance or lease the most energy efficient water heater available when replacing or installing new electric water heaters.

Seasonal LED Lighting

This program encouraged customers to replace their existing incandescent seasonal light strings with energy efficient LED light strings.

Programmable Thermostat Pilot

This pilot program encouraged customers to replace non-programmable thermostats with ENERGY STAR programmable models.

High Efficiency Furnace/Boiler

This program provided financial incentives to residential customers who replaced their existing natural gas furnaces or boilers with ENERGY STAR-qualified high efficiency natural gas furnaces or boilers.

Residential Appliances

This program provided financial incentives to residential customers who purchased ENERGY STAR-qualified clothes washers and chest freezers.

Residential Appliances

This program provided financial incentives to residential customers who purchased ENERGY STAR-qualified clothes washers and chest freezers.

Commercial Programs

Roadway Lighting

This program converted existing incandescent and mercury vapour street lighting to the more energy efficient high pressure sodium variety.

Sentinel Lighting Conversion

This program encouraged the conversion of yard lighting and sentinel lighting from mercury vapour and incandescent lighting to the more energy efficient high pressure sodium variety.

Commercial Showerhead Pilot

This pilot program encouraged commercial operations to retrofit shower facilities with energy efficient showerheads.

Infrared Heat Lamps

This program encouraged swine farrowing operations to use energy efficient heat lamps in place of standard heat lamps to reduce energy and demand consumption.

Agricultural Demand Controller

This program encouraged large agricultural operations to install demand controllers to reduce peak demand consumption.

Livestock Waterer

This program encouraged dairy and cattle operations to install energy efficient waterers to reduce energy and demand consumption.

Commercial Construction – Air Barrier Component

This program encouraged commercial customers to install greater efficiency air barriers when retrofitting their building's envelope.

Commercial Construction – Air Conditioning Component

This program encouraged commercial customers to replace their existing air conditioning system with a more energy efficient system.

Commercial Parking Lot Controllers

This program encouraged customers to implement parking lot controller technology to effectively manage electricity usage in their parking lots.

Agricultural Heat Pads

This program encouraged owners of swine barns to realize energy and demand savings by using energy efficient heat pads instead of traditional heat lamps in hog farrowing crates.

Commercial Rinse & Save

The program offered operators of restaurants or food services businesses the free installation of a new low-flow pre-rinse spray valve. The old spray valves were recycled by Manitoba Hydro to ensure they did not re-enter the market.

Industrial Programs

High Efficiency Motor

This program encouraged the installation of high efficiency motors in industrial and commercial operations.

Appendix E

Curtable Rates Program Information & Methodology

- The Curtable Rates Program provides incentives to large industrial customers who curtail their electrical load when called upon by Manitoba Hydro. Incentives are provided by way of a credit on the customer's monthly energy bill.
 - 2010/11 reported demand savings for the Curtable Rates Program are based on a methodology where curtailments throughout the year are analyzed to determine the amount of curtable load that can be expected to be on the system at the time a curtailment is called. This methodology has been in place since 2000/01. For previous methodology details, refer to the appropriate Power Smart Annual Review.
 - Curtable Rates Program targets are from the current approved 2010 Power Smart Plan.
 - Curtable Rate Program targets and savings are adjusted for efficiency. This adjustment is made to equate load available for curtailment to that of an actual generator. Curtailments are not as efficient since there is potential risk customers may not curtail at all or may not curtail in time for Manitoba Hydro's system peak. The efficiency factor is based on the curtailment option selected by the customer.
 - Savings resulting from the Curtable Rates Program are available as long as the service offering continues, whether or not actual curtailments are made at the time of system peak or at any other time.
- Curtailments may be made to:
- o Re-establish contingency reserves;
 - o Maintain planning reserve obligations
 - o To protect firm load when reserves are insufficient to avoid curtailing firm load; and to
 - o Meet Manitoba Hydro's non-spinning reserves to the extent necessary.
- The expected availability of this load and not the timing of its dispatch determine the future benefits of demand savings for this program.
 - Under the 2010/11 Power Smart Annual Review, the Curtable Rates Program has been treated as an incentive-based program. This is consistent with treatment in the current approved 2010 Power Smart Plan. As a rate/load management program, certain economic indicators such as TRC and RIM are not reported.

Total Annual Energy Savings - GWh
Electric Incentive Based Programs

Table with columns for program categories (RESIDENTIAL, COMMERCIAL, INDUSTRIAL) and years from 1989/90 to 2024/25. Rows list various energy-saving programs like Compact Fluorescent Lighting, Commercial Refrigeration, and HVAC systems.

Notes: Subtotals may not be exact due to rounding.
* Programs comprise the Commercial Building Envelope Program.
SOURCE: To populate this 2010-11 chart, take these figures from the Access report for Cumulative Energy

Appendix G

Average Winter MW Savings – Incentive- Based Programs

2010/11 Average Winter MW Electric Incentive-Based Programs

	2011/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	At Generation 2010/11	At Generation 2024/25
RESIDENTIAL																	
CFL	5.1	5.1	5.1	5.1	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0
Home Insulation	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.0	3.0
Lower Income	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	0.8
Water & Energy Saver	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
New Homes	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Energy Efficient Light Fixtures	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Refrigerator Retirement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RESIDENTIAL TOTAL	9.7	9.7	9.7	9.7	9.7	4.6	4.6	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	11.0	5.0
COMMERCIAL																	
Commercial Lighting Program	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.0
Commercial Insulation	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.9	1.9
Commercial Windows	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.2
Commercial Earth Power	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.1	1.1
Internal Retrofit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Commercial Refrigeration	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Custom	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
City of Winnipeg P5 Agreement	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Power Smart Shops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Clothes Washers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Building Optimization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Kitchen Appliances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Network Energy Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HVAC - Chillers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Buildings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P5 Energy Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMERCIAL TOTAL	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	7.9	7.9	7.8	7.8	7.8	9.5	8.9
DISCONTINUED/COMPLETED																	
Agricultural Heat Pads	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Spray Valves	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Showerhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Infrared Heat Lamp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Livestock Waterer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Roadway Lighting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sentinel Lighting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Air Barrier	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Agricultural Demand Controller	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Air Conditioning	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aboriginal Commercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Parking Lot Controllers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMERCIAL TOTAL	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.2	8.2	8.1	8.1	8.1	9.8	9.2
INDUSTRIAL																	
Performance Optimization	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.8	3.8
Emergency Preparedness	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DISCONTINUED/COMPLETED																	
Industrial (Basic)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retrofit/Demonstration GSL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High Efficiency Motors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Efficient Motors (QWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INDUSTRIAL TOTAL	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.8	3.8
EFFICIENCY PROGRAMS SUBTOTAL	21.7	21.7	21.7	21.7	21.7	16.7	16.7	16.6	16.5	16.5	16.1	16.1	16.0	16.0	16.0	24.6	18.0
CUSTOMER SELF-GENERATION PROGRAMS																	
Bioenergy	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0
Curtilable Rates	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0
RATELOAD MANAGEMENT PROGRAMS																	
15445	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.00	0.0
15445	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.00	0.0
MW IMPACTS (at meter)	190.6	21.7	21.7	21.7	21.7	16.7	16.7	16.6	16.5	16.5	16.1	16.1	16.0	16.0	16.0	N/A	N/A
MW IMPACTS (at generation)	210.3	24.6	24.6	24.6	24.6	18.8	18.8	18.8	18.7	18.7	18.2	18.2	18.0	18.0	18.0	210.3	18.0

Note: Subtotals may not be exact due to rounding.

* Programs comprise the Commercial Building Envelope Program.

**Persisting Average Winter, MW
Electric Incentive-Based Programs**

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39
RESIDENTIAL	15.0	13.0	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CFL	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
Home Insulation	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
New Homes	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Energy Efficient Light Fixtures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water Heaters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refrigerator	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refrigerator Retirement	31.1	29.1	23.1	23.0	16.0	15.8	15.9	15.9	15.9	15.9	15.9	15.9	15.8	15.8	15.8	15.8	15.5	15.5	15.5	15.6	15.6	15.6	15.4	14.4	12.8	12.8	9.1	5.1
Discontinued/Completed	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Outdoor Timer	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Residential Appliances	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
High Efficiency Furnace & Boiler	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Residential Water Heating	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Water Heater Rental	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water Heater Replacement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retrofit/Demonstration	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thermostat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refrigerator Buy-back	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
RESIDENTIAL TOTAL	35.9	33.9	27.9	27.9	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.3	19.7	19.1	18.9	18.9	18.6	18.5	18.5	18.6	18.6	18.3	16.9	15.3	13.7	11.6	7.6	
COMMERCIAL	42.3	42.3	42.3	42.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	37.4	34.1	29.2	25.3	28.8	28.8	28.8	27.0	23.5	23.5	23.5	23.5	23.5	
Commercial Lighting Program	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	9.1	7.4	6.6	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Commercial Earth Power	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Internal Retrofit	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Commercial Insulation	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Commercial Windows	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
City of Winnipeg PS Agreement	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Commercial Refrigeration	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Custom	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Commercial Clothes Washers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Commercial Kitchen Appliances	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Power Smart Shops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Network Energy Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Building Optimization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial HVAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Buildings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PS Energy Manager	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	65.6	58.2	53.2	47.5	41.8	46.3	45.6	44.2	37.1	28.8	29.1	29.0	28.6	27.0
DISCONTINUED/COMPLETED	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Roadway Lighting	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Agricultural Heat Pads	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Agricultural Demand Controller	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Infused Heat Lamp	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Commercial Air Barrier	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Spray Valves	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Commercial Showerhead	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Livestock Waterer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Air Conditioning	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Fire Alarm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Parking Lot Controllers	14.8	14.8	14.8	14.8	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	13.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.6	13.1	13.0	13.0	13.0	13.0
COMMERCIAL TOTAL	82.7	82.7	82.7																									

Persisting Gas Savings - million m3
Natural Gas Incentive Based Programs

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
RESIDENTIAL																									
Home Insulation	0.0	0.0	0.0	0.0	0.3	2.2	3.9	5.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	
Low Income (LEIP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	
New Home Program	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Water & Energy Saver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DISCONTINUED/COMPLETED																									
Res HE Gas Furnace - Boiler	0.0	0.0	0.0	0.0	0.6	2.6	4.0	5.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	
Thermostat	0.0	0.0	0.0	0.0	0.6	2.7	4.2	5.9	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	
RESIDENTIAL TOTAL	0.0	0.0	0.0	0.0	1.0	5.0	8.3	11.9	15.8	15.8	15.8	15.8	15.8	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.5	15.5	
COMMERCIAL																									
HVAC	0.0	0.0	0.0	0.0	0.0	0.4	2.5	4.8	6.2	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	
Commercial Insulation	0.0	0.0	0.0	0.0	0.0	0.3	1.1	2.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	
City of Winnipeg Agreement	0.0	0.1	0.1	0.2	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	
Commercial Windows	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
CBIP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Custom Measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Power Smart Shops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial New Buildings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Washers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Network Energy Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Kitchen Appliances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DISCONTINUED/COMPLETED																									
Commercial Rise and Save	0.0	0.0	0.0	0.0	0.0	0.8	1.1	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.5	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
COMMERCIAL TOTAL	0.0	0.1	0.1	0.2	0.6	2.2	5.5	10.1	13.4	11.9	11.9	11.9	11.9	11.9	11.1	10.8	9.7	9.3	9.2	9.2	9.2	9.1	9.1	9.1	
INDUSTRIAL																									
Industrial Natural Gas Optimization	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.7	2.7	1.8	
INDUSTRIAL TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.7	2.7	1.8	
EFFICIENCY PROGRAMS SUBTOTAL	0.0	0.1	0.1	0.2	1.6	7.3	15.5	25.9	34.1	32.6	32.6	32.6	32.6	32.4	31.6	31.3	30.2	29.8	29.7	29.7	29.4	27.3	26.3	26.3	
CUSTOMER SELF GENERATION																									
Bioenergy Optimization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
LESS: INTERACTIVE EFFECTS	0.0	0.0	0.0	-1.2	-2.6	-3.0	-3.8	-5.9	-8.5	-8.1	-7.6	-7.0	-5.0	-1.9	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.2	-2.3	-1.8	
NET IMPACT: OVERALL	0.0	0.1	0.1	-1.0	-1.0	4.3	11.7	20.0	25.6	24.6	25.0	25.7	27.6	30.6	30.4	29.5	29.2	28.1	27.7	27.6	27.6	27.2	25.0	24.5	

Note: Subtotals may not be exact due to rounding.
 * Programs comprise Commercial Building Envelope Program.
 SOURCE: To populate this 2010-11 chart, take these figures from the Access report for Cumulative Energy

Persisting Gas Savings - million m3
Natural Gas Incentive Based Programs

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39
RESIDENTIAL														
Home Insulation	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.3	5.4	3.7	2.0
Low Income (LIEEP)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
New Home Program	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.1
Water & Energy Saver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.3	8.3	8.0	6.0	4.3	2.4
DISCONTINUED/COMPLETED														
Res HE Gas Furnace - Boiler	6.9	6.9	6.9	6.9	6.9	6.3	4.3	2.9	1.2	0.0	0.0	0.0	0.0	0.0
Thermostat	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7.1	7.1	7.1	7.1	7.1	6.5	4.4	2.9	1.2	0.0	0.0	0.0	0.0	0.0
RESIDENTIAL TOTAL	15.5	15.5	15.5	15.5	15.5	14.8	12.7	11.2	9.5	8.3	8.0	6.0	4.3	2.4
COMMERCIAL														
HVAC	4.7	4.7	4.7	4.7	4.7	4.7	4.3	2.2	-0.1	-1.5	0.0	0.0	0.0	0.0
Commercial Insulation	3.2	3.2	3.2	3.2	3.2	3.0	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
City of Wining Agreement	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Commercial Windows	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0
CBQP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Custom Measures	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Power Smart Shops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial New Buildings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Washers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Network Energy Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Kitchen Appliances	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0
	8.7	8.7	8.7	8.7	8.5	8.5	7.8	4.8	1.3	-1.5	0.0	0.0	0.0	0.0
DISCONTINUED/COMPLETED														
Commercial Rinse and Save	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMMERCIAL TOTAL	8.7	8.7	8.7	8.7	8.5	8.5	7.8	4.8	1.3	-1.5	0.0	0.0	0.0	0.0
INDUSTRIAL														
Industrial Natural Gas Optimization	1.8	1.8	0.3	0.3	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
INDUSTRIAL TOTAL	1.8	1.8	0.3	0.3	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
EFFICIENCY PROGRAMS SUBTOTAL	25.9	25.9	24.4	24.4	24.2	23.6	20.7	16.3	10.8	6.9	8.0	6.1	4.3	2.4
CUSTOMER SELF-GENERATION														
Bioenergy Optimization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LESS: INTERACTIVE EFFECTS	-1.0	-1.1	-0.9	-0.6	-0.4	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	0.1	0.1
NET IMPACT: OVERALL	25.0	24.8	23.6	23.8	23.8	23.5	20.6	16.2	10.7	6.8	7.9	6.2	4.4	2.5

Note: Subtotals may not be exact due to rounding.
* Programs comprise Commercial Building Envelope Program.

SOURCE: To populate this 2010-11 chart, take these figures from the Access report for Cumulative Energy

Total Annual Gas Savings - million m3
Natural Gas Incentive Based Programs

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
RESIDENTIAL																									
Home Insulation	0.0	0.0	0.0	0.0	0.3	2.2	3.9	5.6	7.6	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Low Income (LIEEP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	2.3	2.3	2.3	2.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
Water & Energy Saver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
New Home Program	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
DISCONTINUED/COMPLETED	0.0	0.0	0.0	0.0	0.4	2.3	4.1	6.0	8.7	12.7	12.7	12.7	12.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.6	11.6	11.6
Res HE Gas Furnace - Boiler Thermostat	0.0	0.0	0.0	0.0	0.6	2.7	4.2	5.9	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
RESIDENTIAL TOTAL	0.0	0.0	0.0	0.0	1.0	5.0	8.3	11.9	15.8	4.0	19.8	19.8	19.6	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8
COMMERCIAL																									
HVAC	0.0	0.0	0.0	0.0	0.0	0.4	2.5	4.8	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
Commercial Insulation*	0.0	0.0	0.0	0.0	0.0	0.3	1.1	2.1	3.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Commercial Windows**	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
City of Winnipeg Agreement	0.0	0.1	0.1	0.2	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6
CBQP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Commercial Custom Measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Commercial Kitchen Appliances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Power Smart Shops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Washers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial New Buildings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Energy Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Network Energy Manager	0.0	0.1	0.1	0.2	0.6	1.4	4.4	8.0	11.0	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.7	13.5	13.3	13.3	13.2	13.2	13.1	13.1
DISCONTINUED/COMPLETED	0.0	0.0	0.0	0.0	0.0	0.8	1.1	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Commercial Rise and Save	0.0	0.0	0.0	0.0	0.0	0.8	1.1	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
COMMERCIAL TOTAL	0.0	0.1	0.1	0.2	0.6	2.2	5.5	10.1	13.4	16.2	16.2	16.2	16.2	16.2	16.2	16.4	15.1	13.9	13.5	13.3	13.3	13.2	13.2	13.1	13.1
INDUSTRIAL																									
Industrial Natural Gas Optimization	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.8	4.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
INDUSTRIAL TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.8	4.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
EFFICIENCY PROGRAMS SUBTOTAL	0.0	0.1	0.1	0.2	1.6	7.3	15.5	25.9	34.1	44.0	44.0	44.0	43.8	43.1	42.3	42.0	42.0	40.9	40.5	40.3	40.2	39.9	37.8	36.8	36.8
CUSTOMER SELF GENERATION																									
Bioenergy Optimization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LESS: INTERACTIVE EFFECTS	0.0	0.0	0.0	-1.2	-2.6	-3.0	-3.8	-5.9	-8.5	-10.0	-9.5	-8.9	-6.9	-3.8	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.2	-2.3	-1.8	-1.8
NET IMPACT: OVERALL	0.0	0.1	0.1	-1.0	-1.0	4.3	11.7	20.0	25.6	34.1	34.5	35.2	37.1	40.1	41.0	40.2	39.9	38.8	38.4	38.1	38.1	37.7	35.5	35.0	35.0

Note: Subtotals may not be exact due to rounding.
* Programs comprise Commercial Building Envelope Program.
SOURCE: To populate this 2010-11 chart, take these figures from the Access report for Cumulative Energy

Total Annual Gas Savings - million m3
Natural Gas Incentive Based Programs

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39
RESIDENTIAL														
Home Insulation	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.7	6.9	5.2	3.4
Low Income (LIEP)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Water & Energy Saver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Home Program	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2
	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.7	10.7	10.4	8.4	6.7	4.8
DISCONTINUED/COMPLETED														
Res HE Gas Furnace - Boiler	7.0	7.0	7.0	7.0	7.0	6.4	4.4	2.9	1.2	0.0	0.0	0.0	0.0	0.0
Thermostat	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7.1	7.1	7.1	7.1	7.1	6.5	4.4	2.9	1.2	0.0	0.0	0.0	0.0	0.0
RESIDENTIAL TOTAL	17.9	17.9	17.9	17.9	17.9	17.3	15.2	13.7	11.9	10.7	10.4	8.4	6.7	4.8
COMMERCIAL														
HVAC	6.2	6.1	6.1	6.1	6.1	6.1	5.8	3.7	1.4	0.0	0.0	0.0	0.0	0.0
Commercial Insulation*	5.4	5.4	5.4	5.4	5.4	5.4	5.1	4.3	3.2	2.1	0.0	0.0	0.0	0.0
Commercial Windows*	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.3	0.0	0.0	0.0	0.0
City of Winnipeg Agreement	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
CBOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Custom Measures	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Kitchen Appliances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Power Smart Shops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Washers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial New Buildings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Network Energy Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.8	12.8	12.8	12.8	12.6	12.6	11.8	8.8	5.3	2.5	0.0	0.0	0.0	0.0
DISCONTINUED/COMPLETED														
Commercial Rinse and Save	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INDUSTRIAL														
COMMERCIAL TOTAL	12.8	12.8	12.8	12.8	12.6	12.6	11.8	8.8	5.3	2.5	0.0	0.0	0.0	0.0
Industrial Natural Gas Optimization	4.8	4.8	3.3	3.3	3.2	0.5	0.5	0.5	0.3	0.3	0.0	0.0	0.0	0.0
INDUSTRIAL TOTAL	4.8	4.8	3.3	3.3	3.2	0.5	0.5	0.5	0.3	0.3	0.0	0.0	0.0	0.0
EFFICIENCY PROGRAMS SUBTOTAL	35.5	35.4	33.9	33.9	33.7	30.3	27.4	23.0	17.5	13.6	10.4	8.5	6.7	4.8
CUSTOMER SELF-GENERATION														
Bioenergy Optimization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LESS: INTERACTIVE EFFECTS	-1.0	-1.1	-0.9	-0.7	-0.4	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	0.1	0.0
NET IMPACT: OVERALL	34.5	34.3	33.1	33.3	33.3	30.2	27.3	22.8	17.4	13.5	10.3	8.5	6.8	4.9

Note: Subtotals may not be exact due to rounding.
* Programs comprise Commercial Building Envelope Program.

SOURCE: To populate this 2010-11 chart, take these figures from the Access report for Cumulative Energy

Appendix I

GW.h Energy Savings - Customer Service Initiatives (CSI)

2010/11 Annual Energy Savings - GW.h Electric CSI Programs

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
RESIDENTIAL															
Power Smart Residential Loan	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Residential Earth Power Loan	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
DISCONTINUED/COMPLETED															
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GW.h IMPACTS (at meter)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
GW.h IMPACTS (at generation)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Note: Subtotals may not be exact due to rounding.

2010/11 Annual Energy Savings - GW.h Electric CSI Programs

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	At Generation 2010/11	At Generation 2024/25
RESIDENTIAL																
Power Smart Residential Loan	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.6	0.6
Residential Earth Power Loan	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.7	0.7
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	1.3	1.3
DISCONTINUED/COMPLETED																
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GW.h IMPACTS (at meter)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	N/A	N/A
GW.h IMPACTS (at generation)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	1.3	1.3

Note: Subtotals may not be exact due to rounding.

Persisting Energy Savings - GW.h
Electric CSI Programs

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	At Generation 2010/11	At Generation 2024/25
RESIDENTIAL																								
Power Smart Residential Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.6	2.2	2.7	3.2	3.9	4.6	5.2	6.9	6.9	7.8	7.8
Residential Earth Power Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	2.8	4.8	6.1	8.8	10.2	11.2	11.2	12.8	7.3
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.2	3.6	6.5	8.9	11.0	14.4	16.3	19.0	19.1	21.7	16.3
DISCONTINUED/COMPLETED																								
PSEMI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.2	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.2	0.0
GW.h IMPACTS (at meter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.4	6.0	9.3	11.7	13.8	17.2	19.1	21.9	21.9	N/A	N/A
GW.h IMPACTS (at generation)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.9	6.8	10.6	13.4	15.7	19.6	21.8	24.9	24.9	24.9	16.3

Note: Subtotals may not be exact due to rounding.

Persisting Energy Savings - GW.h
Electric CSI Programs

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	
RESIDENTIAL																													
Power Smart Residential Loan	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.0	5.3	4.7	3.7	3.7	3.0	0.0	0.0	
Residential Earth Power Loan	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
ecoENERGY	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.5	0.0	0.0	0.0	0.0	0.0	
R-2000 Component of the New Home Program	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	18.7	18.1	14.3	14.3	12.9	8.9	7.3	7.3	7.9	6.8	6.0	5.2	3.7	3.7	3.0	0.0	0.0	
DISCONTINUED/COMPLETED																													
PSEMI	2.2	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2.2	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
GW.h IMPACTS (at meter)	21.3	20.7	19.5	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	18.7	18.1	14.3	14.3	12.9	8.9	7.3	7.3	7.9	6.8	6.0	5.2	3.7	3.7	3.0	0.0	0.0	
GW.h IMPACTS (at generation)	24.2	23.6	22.2	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.4	20.6	16.3	16.3	14.7	10.2	8.3	8.3	9.0	7.8	6.9	5.9	4.2	4.2	3.4	0.0	0.0	

Note: Subtotals may not be exact due to rounding.

**Total Annual Energy Savings - GW.h
Electric CSI Programs**

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2008/10	2010/11	At Generation 2010/11	At Generation 2024/25
RESIDENTIAL																								
Power Smart Residential Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.6	2.2	2.7	3.2	3.9	4.6	5.2	6.9	7.4	8.5	8.5
Residential Earth Power Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	2.8	4.8	6.1	8.8	10.2	11.2	11.8	13.5	8.0
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
DISCONTINUED/COMPLETED																								
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.2	0.0
GW.h IMPACTS (at meter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.4	6.0	9.3	11.7	13.8	17.2	19.1	21.9	23.0	N/A	N/A
GW.h IMPACTS (at generation)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.9	6.8	10.6	13.4	15.7	19.8	19.8	21.8	24.9	26.3	26.3	17.6

Note: Subtotals may not be exact due to rounding.

**Total Annual Energy Savings - GW.h
Electric CSI Programs**

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	
RESIDENTIAL																													
Power Smart Residential Loan	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	6.5	5.9	5.3	4.2	4.2	3.6	0.0	0.0	
Residential Earth Power Loan	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.5	10.8	7.0	7.0	5.7	1.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ecoENERGY	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
DISCONTINUED/COMPLETED																													
PSEM	2.2	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GW.h IMPACTS (at meter)	22.4	21.8	20.7	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	19.9	19.3	15.5	15.5	14.1	10.1	8.5	8.4	7.4	6.6	6.6	5.8	4.2	4.2	3.6	0.0	0.0	0.0
GW.h IMPACTS (at generation)	23.6	23.6	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	22.7	22.0	17.6	17.6	16.1	11.5	9.7	8.7	8.4	7.4	7.3	6.6	4.8	4.8	4.1	0.0	0.0	0.0

Note: Subtotals may not be exact due to rounding.

Appendix J

Average Winter MW Savings –Customer Service Initiatives (CSI)

2010/11 Average Winter MW Electric CSI Programs

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
RESIDENTIAL															
Power Smart Residential Loan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Residential Earth Power Loan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
DISCONTINUED/COMPLETED															
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MW IMPACTS (at meter)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
MW IMPACTS (at generation)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

Note: Subtotals may not be exact due to rounding.

2010/11 Average Winter MW Electric CSI Programs

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	At Generation 2010/11	At Generation 2024/25
RESIDENTIAL																
Power Smart Residential Loan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3
Residential Earth Power Loan	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.8	0.8	0.8	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.7	0.7
DISCONTINUED/COMPLETED																
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MW IMPACTS (at meter)	0.8	0.8	0.8	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	N/A	N/A
MW IMPACTS (at generation)	0.9	0.9	0.9	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.7	0.7

Note: Subtotals may not be exact due to rounding.

Persisting Average Winter MW Electric CSI Programs

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	At Generation 2010/11	At Generation 2024/25
RESIDENTIAL																								
Power Smart Residential Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.8	1.1	1.4	1.6	2.0	2.7	2.7	3.0	3.9	3.5	4.5
Residential Earth Power Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	1.1	1.4	2.1	2.1	2.5	3.0	2.8	2.7
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	1.4	2.1	2.7	3.5	4.9	4.9	5.6	7.0	6.3	7.2
DISCONTINUED/COMPLETED																								
PSEMI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
MW IMPACTS (at meter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.5	2.2	2.9	3.6	5.0	5.0	5.7	7.1	N/A	N/A
MW IMPACTS (at generation)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	1.7	2.5	3.3	4.1	5.7	5.7	6.5	8.1	6.5	7.2

Note: Subtotals may not be exact due to rounding.

Persisting Average Winter MW Electric CSI Programs

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	
RESIDENTIAL																													
Power Smart Residential Loan	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.5	3.1	2.8	2.5	2.3	1.9	0.0	0.0	
Residential Earth Power Loan	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	2.7	2.4	2.1	1.8	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Solar Hot Water Heating	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.7	6.3	6.1	5.8	4.7	4.7	4.7	4.7	4.4	3.9	3.6	3.3	3.0	2.3	1.9	0.0	0.0	
	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MW IMPACTS (at meter)	7.1	7.1	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.7	6.3	6.1	5.8	4.7	4.7	4.7	4.7	4.4	3.9	3.6	3.3	3.0	2.3	1.9	0.0	0.0	
MW IMPACTS (at generation)	8.1	8.0	8.0	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.7	7.2	7.0	6.6	5.4	5.4	5.4	5.4	5.0	4.5	4.1	3.7	3.4	2.6	2.2	0.0	0.0	

Note: Subtotals may not be exact due to rounding.

RESIDENTIAL

DISCONTINUED/COMPLETED

PSEMI

MW IMPACTS (at meter)
MW IMPACTS (at generation)

RESIDENTIAL

DISCONTINUED/COMPLETED

PSEMI

MW IMPACTS (at meter)
MW IMPACTS (at generation)

**Total Average Winter MW
Electric CSI Programs**

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	At Generation 2010/11	At Generation 2034/25
RESIDENTIAL																								
Power Smart Residential Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.8	1.1	1.4	1.6	2.0	2.7	3.0	3.9	4.2	4.5	4.8
Residential Earth Power Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	1.1	1.4	2.1	2.5	3.0	3.3	3.4	3.0
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	1.4	2.1	2.7	3.5	4.9	5.6	7.0	7.5	7.9	7.9
DISCONTINUED/COMPLETED																								
PSEEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
MW IMPACTS (at meter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.5	2.2	2.9	3.6	5.0	5.7	7.1	7.7	N/A	N/A
MW IMPACTS (at generation)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	1.7	2.5	3.3	4.1	5.7	6.5	8.1	8.8	8.1	7.9

Note: Subtotals may not be exact due to rounding.

**Total Average Winter MW
Electric CSI Programs**

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39
RESIDENTIAL																												
Power Smart Residential Loan	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.8	3.4	3.1	2.8	2.6	2.2	0.0	0.0
Residential Earth Power Loan	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1	3.0	3.0	2.7	2.7	2.3	1.2	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.3	7.3	6.9	6.9	6.6	5.5	5.0	5.0	4.7	4.2	3.8	3.5	3.3	2.6	2.2	0.0	0.0
DISCONTINUED/COMPLETED																												
PSEEM	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MW IMPACTS (at meter)	7.7	7.6	7.6	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.3	7.3	6.9	6.9	6.6	5.5	5.0	5.0	4.7	4.2	3.8	3.5	3.3	2.6	2.2	0.0	0.0
MW IMPACTS (at generation)	8.8	8.7	8.7	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.4	8.3	8.3	7.9	7.9	7.5	6.3	5.7	5.7	5.4	4.8	4.4	4.0	3.7	2.9	2.5	0.0	0.0

Note: Subtotals may not be exact due to rounding.

Appendix K

Natural Gas Savings (m3) –Customer Service Initiatives (CSI)

2010/11 Natural Gas Savings - million m3 Natural Gas CSI Programs

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
RESIDENTIAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Power Smart Residential Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Residential Earth Power Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
DISCONTINUED/COMPLETED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Note: Subtotals may not be exact due to rounding.

2010/11 Natural Gas Savings - million m3 Natural Gas CSI Programs

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39
RESIDENTIAL	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Power Smart Residential Loan	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Residential Earth Power Loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ecoENERGY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
DISCONTINUED/COMPLETED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Note: Subtotals may not be exact due to rounding.

Persisting Natural Gas Savings - million m3
Natural Gas CSI Programs

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
RESIDENTIAL																								
Power Smart Residential Loan	1.2	2.1	3.5	5.6	7.8	9.6	11.3	12.3	13.9	13.9	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Residential Earth Power Loan	0.0	0.1	0.1	0.5	0.8	1.0	1.3	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.5	1.2
ecoENERGY	0.0	0.1	0.4	1.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.2	2.3	4.1	7.4	10.9	12.9	15.0	16.1	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	17.9	17.8	17.5
DISCONTINUED/COMPLETED																								
PSEM	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.2	2.4	4.3	7.7	11.3	13.2	15.3	16.4	18.3	18.3	18.3	18.3	18.1	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	17.9	17.8	17.5

Note: Subtotals may not be exact due to rounding.

Persisting Natural Gas Savings - million m3
Natural Gas CSI Programs

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39
RESIDENTIAL														
Power Smart Residential Loan	14.0	14.0	14.0	14.0	14.0	14.0	12.7	11.8	10.4	8.4	6.1	2.6	0.0	0.0
Residential Earth Power Loan	0.9	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.0	0.0
ecoENERGY	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	1.9	1.1	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	17.2	17.0	16.7	16.7	16.7	16.7	15.4	14.4	12.7	9.8	6.9	3.0	0.0	0.0
DISCONTINUED/COMPLETED														
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	17.2	17.0	16.7	16.7	16.7	16.7	15.4	14.4	12.7	9.8	6.9	3.0	0.0	0.0

Note: Subtotals may not be exact due to rounding.

**Total Annual Natural Gas Savings - million m3
Natural Gas CSI Programs**

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
RESIDENTIAL																									
Power Smart Residential Loan	1.2	2.1	3.5	5.6	7.8	9.6	11.3	12.3	13.9	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	
Residential Earth Power Loan	0.0	0.1	0.1	0.5	0.8	1.0	1.3	1.4	1.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.6	
eecoENERGY	0.0	0.1	0.4	1.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Solar Hot Water Heating	1.2	2.3	4.1	7.4	10.9	12.9	15.0	16.1	18.0	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.6	18.3	
DISCONTINUED/COMPLETED																									
PSEM	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL	1.2	2.4	4.3	7.7	11.3	13.2	15.3	16.4	18.3	19.0	19.1	19.0	18.9	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.6	18.3	

Note: Subtotals may not be exact due to rounding.

**Total Annual Natural Gas Savings - million m3
Natural Gas CSI Programs**

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39
RESIDENTIAL														
Power Smart Residential Loan	14.3	14.3	14.3	14.3	14.3	14.3	13.0	12.1	10.8	8.7	6.5	3.0	0.0	0.0
Residential Earth Power Loan	1.3	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.0	0.0
eecoENERGY	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	1.9	1.1	0.0	0.0	0.0	0.0
R-2000 Component of the New Home Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar Hot Water Heating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	18.0	17.8	17.4	17.4	17.4	17.4	16.2	15.1	13.5	10.5	7.3	3.3	0.0	0.0
DISCONTINUED/COMPLETED														
PSEM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	18.0	17.8	17.4	17.4	17.4	17.4	16.2	15.1	13.5	10.5	7.3	3.3	0.0	0.0

Note: Subtotals may not be exact due to rounding.

Appendix L

Annual Energy Savings- Codes and Standards (GW.h, MW, and m³)

Annual Energy Savings - GW.h Codes & Standards

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Residential Appliances:																				
Ranges	0.4	-0.2	-0.1	0.1	-0.3	-0.1	-0.1	-0.1	-0.3	0.2	0.2	0.0	0.0	0.1	-0.2	-0.2	-0.2	3.4	3.2	
Dishwashers	0.0	0.1	0.2	0.4	0.7	0.8	0.7	0.7	0.7	0.8	0.8	1.3	2.0	2.0	2.5	3.4	3.5	0.2	0.2	
Clothes Washers	-0.3	-0.3	0.1	0.1	0.1	0.2	0.6	0.8	0.8	0.8	0.7	0.9	3.0	3.1	3.9	3.6	3.8	0.2	0.2	
Clothes Dryers	0.1	0.1	0.4	0.4	4.6	0.5	0.1	0.1	0.1	0.2	0.2	0.2	1.0	1.0	1.0	0.9	0.9	14.0	15.8	
Refrigerators	2.0	4.7	6.1	7.1	7.0	7.2	7.1	7.2	7.8	7.8	10.1	11.0	12.9	13.2	12.8	16.2	17.1	18.7	10.9	
Freezers	-0.3	0.3	0.4	0.5	0.7	0.4	0.5	0.5	0.5	0.5	0.3	0.3	0.5	-0.8	-0.5	-0.7	-0.8	3.1	2.6	
Residential Insulation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.0	1.0	1.1	1.2	1.5	0.8	1.2	1.3	1.5	2.8	2.9	
Other Residential Equipment ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	
Commercial Lighting - T12 & T8 Lighting	0.0	0.0	0.0	0.0	0.0	9.7	15.4	16.5	14.9	16.3	19.2	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.4	
Industrial Equipment - High Efficiency Motors	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.0	0.0	0.0	0.0	
Subtotal	1.9	4.6	7.1	8.6	12.8	20.3	26.0	28.6	27.2	29.2	34.2	16.9	22.9	21.4	22.5	24.8	26.1	42.6	45.0	
GW.h IMPACTS (at meter)	1.9	4.6	7.1	8.6	12.8	20.3	26.0	28.6	27.2	29.2	34.2	16.9	22.9	21.4	22.5	24.8	26.1	42.6	45.0	
GW.h IMPACTS (at generation)	2.2	5.3	8.1	9.8	14.6	23.1	29.6	32.5	30.9	33.3	39.0	19.2	26.1	24.3	25.6	28.3	29.8	48.5	51.3	

Note: Subtotals may not be exact due to rounding.

¹Category includes: Central air conditioning, electric hot water tank, furnace.

Annual Energy Savings - MW Codes & Standards

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Residential Appliances:																				
Ranges	0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	1.3	1.2	
Dishwashers	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.6	0.8	0.9	0.0	0.0	
Clothes Washers	-0.1	-0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.8	1.0	0.9	0.9	0.0	0.0	
Clothes Dryers	0.0	0.0	0.1	0.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	1.8	2.1	
Refrigerators	0.5	1.1	1.5	1.7	1.7	1.8	1.7	1.8	1.9	1.9	2.5	2.7	3.1	3.2	3.1	4.0	4.2	2.1	1.2	
Freezers	-0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.2	-0.1	-0.2	-0.2	0.3	0.3	
Residential Insulation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.5	0.3	0.4	0.5	0.5	1.2	2.2	
Other Residential Equipment ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
Commercial Lighting - T12 & T8 Lighting	0.0	0.0	0.0	0.0	0.0	2.7	4.3	4.7	4.2	4.6	5.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Industrial Equipment - High Efficiency Motors	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	
Subtotal	0.5	1.1	1.7	2.1	3.0	5.2	6.8	7.6	7.2	7.8	9.1	4.1	5.6	5.2	5.5	6.2	6.5	6.9	7.5	
MW IMPACTS (at meter)	0.5	1.1	1.7	2.1	3.0	5.2	6.8	7.6	7.2	7.8	9.1	4.1	5.6	5.2	5.5	6.2	6.5	6.9	7.5	
MW IMPACTS (at generation)	0.5	1.3	2.0	2.4	3.4	5.9	7.7	8.7	8.2	8.8	10.3	4.7	6.4	5.9	6.2	7.0	7.4	7.9	8.5	

Note: Subtotals may not be exact due to rounding.

¹Category includes: Central air conditioning, electric hot water tank, furnace.

**Annual Energy Savings - millions m³
Codes & Standards**

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Residential Appliances:																				
Dishwashers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Clothes Washers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.2
Furnaces:																				
Residential - Federal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Residential - Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial - Federal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Residential - Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential Insulation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Millions m³	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.3	0.9

Note: Subtotals may not be exact due to rounding.

Appendix M

Electric Incentive Based TRC, Utility, Administration and Incentive Costs

Total Resource Cost (1000s in 2010\$)
Electric Incentive-Based Programs

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2010/11	
RESIDENTIAL																								
Homes Insulation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower Income Energy Efficiency	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Home Energy Efficiency	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy Efficient Lighting	0	0	39	150	95	214	122	62	33	1	18	131	290	220	366	798	1,221	880	918	2,022	1,429	1,932	13,335	5,055
Energy Efficient Wiring	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water & Energy Saver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy Efficient Light Fixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Refrigerator Elements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Refrigerator Compressor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
High Efficiency Furnace/Bolter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DISCONTINUED/COMPLETED																								
Residential Appliances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Programmable Thermostat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Programmable Lighting	0	0	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Refrigerator Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outdoor Timer	903	752	1,096	810	615	661	280	578	276	760	535	912	655	551	0	0	0	0	0	0	0	0	0	0
Refrigerator Demonstration	0	0	91	120	0	0	4	0	0	0	0	0	0	14	46	0	0	0	0	0	0	0	0	0
Refrigerator Freezer Buy-Back	0	0	27	12	0	0	0	0	0	0	0	0	17	28	5	46	25	0	0	0	0	0	0	0
Refrigerator Freezer Buy-Back	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
High Efficiency Furnace/Bolter	903	752	1,403	942	615	661	304	1,032	691	860	544	912	655	588	51	294	844	3,265	5,173	3,356	4,147	11	28,045	35,949
EXPLOITORY PROGRAMS																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESIDENTIAL TOTAL	903	752	1,403	942	615	1,137	756	1,375	1,154	937	550	975	857	948	430	2,776	3,914	7,787	9,789	9,575	10,327	5,674	64,014	86,867
COMMERCIAL																								
Commercial Lighting	0	0	107	1,320	2,617	3,613	3,017	1,619	1,270	3,752	1,259	1,271	1,751	1,620	5,145	9,256	12,979	10,222	9,068	15,016	7,156	6,848	98,867	
Commercial Heating	0	0	115	1,500	2,998	3,892	3,582	1,500	1,220	3,135	1,129	1,220	1,619	1,599	5,145	9,256	12,979	10,222	9,068	15,016	7,156	6,848	98,867	
Commercial Windows	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Earth Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Insulation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Refrigeration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Clothes Washes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial New Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial HVAC Systems	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Smart Energy Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Network Energy Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
City of Winnipeg Power Smart Agreement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Kitchen Appliances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Building Optimization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DISCONTINUED/COMPLETED																								
Commercial Heating Controllers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural Heat Pumps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Heat Pumps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Heat & Save	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Air Conditioners	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Air Barriers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roofway Lighting	0	111	2,028	3,668	3,443	2,590	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Semi-Indoor Lighting	0	31	1,298	1,087	1,115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural Demand Controller	0	0	32	1,051	371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Showrooms	0	18	154	34	4	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Power	0	18	154	34	4	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
At-Risk Commercial	0	18	154	34	4	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COMMERCIAL TOTAL	0	224	3,661	5,854	4,896	3,028	447	541	466	529	106	176	350	249	474	646	1,455	1,401	1,534	802	776	869	28,573	164,414
INDUSTRIAL																								
Performance Optimization	0	224	3,661	5,854	4,896	3,028	447	541	466	529	106	176	350	249	474	646	1,455	1,401	1,534	802	776	869	28,573	164,414
Emergency Preparedness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DISCONTINUED/COMPLETED																								
High Efficiency Motors	0	22	316	827	735	552	483	607	711	46	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial Refrigeration Demonstration	0	0	6	75	22	235	394	62	323	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Effluent Return (Golf)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INDUSTRIAL TOTAL	0	22	316	827	735	552	483	607	711	46	3	0	0	0	0	0	0	0	0	0	0	0	0	0
EFFICIENCY PROGRAMS SUB TOTAL	903	998	5,752	9,838	10,513	11,605	9,851	8,840	6,543	11,538	4,476	4,255	11,158	15,291	15,332	23,558	31,917	31,808	34,712	30,053	32,648	38,590	349,744	
CUSTOMER SELF-GENERATION PROGRAMS																								
Biomethan Optimization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RATE/LOAD MANAGEMENT PROGRAMS																								
Curtable Rates	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Support Costs	0	350	3,371	4,050	2,838	1,601	1,902	1,538	1,216	1,577	2,246	3,024	2,677	3,426	3,461	3,613	3,240	2,626	2,586	4,246	4,315	3,933	51,874	
TOTAL RESOURCE COST	903	1,349	9,123	13,874	13,511	13,419	11,826	10,418	7,807	19,150	6,736	7,312	13,844	18,726	18,807	27,188	35,743	40,742	42,112	43,524	41,586			

Appendix N

Natural Gas Incentive-Based TRC, Utility, Administration and Incentive Costs

Total Resource Cost (1000s in 2010\$) Natural Gas Incentive Based Programs

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2010/11
RESIDENTIAL											
Lower Income	0	0	0	0	81	0	167	275	1,707	9,137	11,367
Home Insulation	0	0	0	0	807	4,401	3,774	4,827	6,136	4,402	24,346
Water & Energy Saver	0	0	0	0	0	0	0	0	41	686	726
New Homes	0	13	77	174	119	271	429	249	700	457	2,489
	0	13	77	174	1,007	4,671	4,370	5,351	8,585	14,682	38,929
DISCONTINUED/COMPLETED											
HE Gas Furnace	0	0	0	0	2,119	6,362	4,755	5,420	3,654	17	22,328
Thermostat	0	0	0	0	0	234	150	18	1	0	403
	0	0	0	0	2,119	6,597	4,905	5,438	3,655	17	22,731
RESIDENTIAL TOTAL	0	13	77	174	3,126	11,268	9,275	10,789	12,240	14,698	46,962
COMMERCIAL											
Commercial Insulation*	0	0	0	0	0	580	1,379	1,359	2,431	3,128	8,878
HVAC	0	0	0	0	108	955	2,518	3,003	1,927	1,823	10,333
Commercial Windows*	0	0	0	0	0	132	344	358	830	1,016	2,680
Commercial Custom	0	0	0	0	0	0	0	0	392	334	727
Commercial Building Optimization	0	0	0	0	78	235	161	118	214	205	1,010
New Buildings	0	0	0	0	0	0	0	145	109	120	374
Power Smart Shops	0	0	0	0	0	0	1	15	81	95	193
Commercial Kitchen Appliance	0	0	0	0	0	0	0	27	44	45	115
Power Smart Energy Manager	0	0	0	0	0	0	121	94	71	0	286
Commercial Hot Water	0	0	0	0	0	0	0	0	22	0	22
City of Winnipeg Agreement	0	0	0	0	0	0	0	0	0	0	0
Commercial Clothes Washers	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	186	1,902	4,523	5,118	6,122	6,766	24,617
DISCONTINUED/COMPLETED											
Spray Valves	0	0	0	0	0	130	56	124	27	2	340
	0	0	0	0	0	130	56	124	27	2	340
COMMERCIAL TOTAL	0	0	0	0	186	2,033	4,579	5,242	6,149	6,768	24,957
INDUSTRIAL											
Industrial Natural Gas Optimization	0	0	0	0	105	38	1,909	2,362	2,289	5,783	12,485
	0	0	0	0	105	38	1,909	2,362	2,289	5,783	12,485
EFFICIENCY PROGRAMS SUBTOTAL	0	13	77	174	3,417	13,338	15,764	18,393	20,677	27,250	84,404
CUSTOMER SELF-GENERATION											
Bioenergy Optimization	0	0	0	0	0	0	14	8	0	0	22
	0	0	0	0	0	0	14	8	0	0	22
PROGRAMS SUBTOTAL	0	13	77	174	3,417	13,338	15,777	18,401	20,677	27,250	84,426
Support Costs**	203	225	243	536	1,249	1,655	1,624	1,960	1,998	2,674	11,054
TOTAL RESOURCE COST OF PROGRAMS	203	238	320	710	4,666	14,993	17,401	20,361	22,675	29,924	95,480

Note: Subtotals may not be exact due to rounding.

Utility Cost (1000s in 2010\$)
Natural Gas Incentive Based Programs

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2010/11
RESIDENTIAL											
Home Insulation	0	0	0	0	388	1,892	3,031	2,798	2,975	2,230	13,313
Lower Income*	0	0	0	0	81	0	167	477	1,568	2,103	4,396
Water & Energy Saver	0	0	0	0	0	0	0	0	41	686	726
New Homes	0	13	77	95	63	96	141	0	88	108	680
	0	13	77	95	531	1,988	3,339	3,275	4,671	5,127	19,115
DISCONTINUED/COMPLETED											
HE Gas Furnace	0	0	0	0	599	1,356	2,158	3,220	1,547	31	8,911
Thermostat	0	0	0	0	198	133	39	1	1	0	371
	0	0	0	0	599	1,554	2,292	3,258	1,547	31	9,282
RESIDENTIAL TOTAL	0	13	77	95	1,131	3,542	5,631	6,533	6,219	5,158	23,239
COMMERCIAL											
Commercial Insulation**	0	0	0	0	0	431	840	1,027	1,255	2,205	5,758
HVAC	0	0	0	0	108	622	1,686	1,403	1,131	1,227	6,175
Commercial Windows**	0	0	0	0	132	286	470	787	997	997	2,671
Commercial Building Optimization	0	0	0	0	78	235	161	160	236	205	1,075
New Buildings	0	0	0	0	0	0	0	145	109	193	447
Commercial Custom	0	0	0	0	0	0	0	0	141	154	295
Power Smart Shops	0	0	0	0	0	0	1	15	81	95	193
Commercial Hot Water	0	0	0	0	0	0	0	0	22	31	53
Commercial Kitchen Appliances	0	0	0	0	0	0	0	16	55	29	101
Power Smart Energy Manager	0	0	0	0	0	0	121	96	71	0	288
City of Winnipeg Agreement	0	0	0	0	0	0	0	0	0	0	0
Commercial Clothes Washers	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	186	1,420	3,094	3,333	3,890	5,135	17,057
DISCONTINUED/COMPLETED											
Spray Valves	0	0	0	0	0	132	56	124	27	21	359
	0	0	0	0	0	132	56	124	27	21	359
COMMERCIAL TOTAL	0	0	0	0	186	1,551	3,150	3,457	3,917	5,155	17,416
INDUSTRIAL											
Industrial Natural Gas Optimization	0	0	0	0	105	38	295	339	603	700	2,080
INDUSTRIAL TOTAL	0	0	0	0	105	38	295	339	603	700	2,080
EFFICIENCY PROGRAMS SUBTOTAL	0	13	77	95	1,421	5,131	9,076	10,329	10,739	11,014	42,735
CUSTOMER SELF-GENERATION											
Bioenergy Optimization	0	0	0	0	0	0	14	8	0	0	0
	0	0	0	0	0	0	14	8	0	0	0
PROGRAMS SUBTOTAL	0	13	77	95	1,421	5,131	9,089	10,337	10,739	11,014	42,735
Support Costs***	203	225	243	536	1,249	1,655	1,624	1,960	1,998	2,674	11,054
UTILITY COST OF PROGRAMS	203	238	320	630	2,670	6,785	10,713	12,297	12,737	13,688	53,790

Note: Subtotals may not be exact due to rounding.
 * Includes Lower Income Furnace Replacement Expenditures.
 ** Programs comprise the Commercial Building Envelope Program.
 *** Support Costs include Affordable Energy Fund Spending.

**Administration Cost (1000s in 2010\$)
Natural Gas Incentive Based Programs**

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2010/11
RESIDENTIAL											
Lower Income	0	0	0	0	81	0	144	131	185	915	1,456
Home Insulation	0	0	0	0	176	541	777	606	476	498	3,075
Water & Energy Saver	0	0	0	0	0	0	0	0	41	126	167
New Homes	0	13	77	78	21	32	50	0	15	0	286
	0	13	77	78	278	573	971	738	717	1,539	4,983
DISCONTINUED/COMPLETED											
HE Gas Furnace	0	0	0	0	270	297	457	361	197	17	1,600
Thermostats	0	0	0	0	0	113	96	18	1	0	228
	0	0	0	0	270	410	553	380	198	17	1,828
RESIDENTIAL TOTAL	0	13	77	78	548	983	1,525	1,117	915	1,556	6,811
COMMERCIAL											
HVAC	0	0	0	0	108	291	302	255	350	261	1,566
Commercial Insulation*	0	0	0	0	0	77	77	176	177	219	726
Commercial Windows*	0	0	0	0	0	84	87	124	142	168	605
Commercial Building Optimization	0	0	0	0	78	235	161	118	156	153	900
New Buildings	0	0	0	0	0	0	0	145	109	120	374
Power Smart Shops	0	0	0	0	0	0	1	15	80	93	190
Commercial Custom	0	0	0	0	0	0	0	0	58	59	117
Commercial Hot Water	0	0	0	0	0	0	0	0	22	31	53
Commercial Kitchen Appliances	0	0	0	0	0	0	0	8	23	10	42
Power Smart Energy Manager	0	0	0	0	0	0	121	94	71	0	286
City of Winnipeg Agreement	0	0	0	0	0	0	0	0	0	0	0
Commercial Clothes Washers	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	186	686	749	935	1,190	1,114	4,860
DISCONTINUED/COMPLETED											
Spray Valves	0	0	0	0	0	54	31	26	18	2	131
	0	0	0	0	0	54	31	26	18	2	131
COMMERCIAL TOTAL	0	0	0	0	186	740	781	961	1,208	1,117	4,991
INDUSTRIAL											
Industrial Natural Gas Optimization	0	0	0	0	105	38	94	88	167	117	609
	0	0	0	0	105	38	94	88	167	117	609
EFFICIENCY PROGRAMS SUBTOTAL	0	13	77	78	839	1,760	2,399	2,166	2,289	2,790	12,412
CUSTOMER SELF-GENERATION											
Bioenergy Optimization	0	0	0	0	0	0	14	8	0	0	22
	0	0	0	0	0	0	14	8	0	0	22
PROGRAMS SUBTOTAL	0	13	77	78	839	1,760	2,413	2,174	2,289	2,790	12,433
Support Costs**	203	225	243	536	1,249	1,655	1,624	1,960	1,998	2,674	11,054
ADMINISTRATION COSTS OF PROGRAMS	203	238	320	613	2,088	3,415	4,037	4,134	4,287	5,464	23,488

Note: Subtotals may not be exact due to rounding.
 * Programs comprise the Commercial Building Envelope Program.
 ** Support Costs include Affordable Energy Fund Spending.

Incentive Costs (1000s in 2010\$)
Natural Gas Incentive Based Programs

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2010/11
RESIDENTIAL											
Home Insulation	0	0	0	0	212	1,350	2,254	2,191	2,499	1,732	10,238
Lower Income	0	0	0	0	0	23	0	346	1,383	1,188	2,940
Water & Energy Saver	0	0	0	0	0	0	0	0	0	408	408
New Homes	0	0	0	17	42	64	90	0	72	84	370
DISCONTINUED/COMPLETED											
HE Gas Furnace	0	0	0	0	329	1,415	2,368	2,537	3,954	3,412	13,956
Thermostats	0	0	0	0	0	85	37	20	1,350	14	7,311
	0	0	0	0	329	1,144	1,739	2,879	1,350	14	7,454
RESIDENTIAL TOTAL	0	0	0	17	582	2,559	4,106	5,416	5,304	3,426	21,410
COMMERCIAL											
Commercial Insulation*	0	0	0	0	0	354	763	852	1,078	1,986	5,032
HVAC	0	0	0	0	0	331	1,384	1,148	781	970	4,613
Commercial Windows*	0	0	0	0	0	48	199	346	645	829	2,066
Commercial Custom	0	0	0	0	0	0	0	0	83	94	178
New Buildings	0	0	0	0	0	0	0	0	73	0	73
Commercial Building Optimization	0	0	0	0	0	0	0	43	80	52	175
Commercial Kitchen Appliances	0	0	0	0	0	0	0	8	32	19	59
Power Smart Shops	0	0	0	0	0	0	0	0	1	2	3
Power Smart Energy Manager	0	0	0	0	0	0	0	2	0	0	2
Commercial Hot Water	0	0	0	0	0	0	0	0	0	0	0
City of Winnipeg Agreement	0	0	0	0	0	0	0	0	0	0	0
Commercial Clothes Washers	0	0	0	0	0	0	0	0	0	0	0
DISCONTINUED/COMPLETED											
Spray Valves	0	0	0	0	0	734	2,345	2,398	2,700	4,025	12,201
	0	0	0	0	0	78	25	98	9	18	228
	0	0	0	0	0	78	25	98	9	18	228
COMMERCIAL TOTAL	0	0	0	0	0	811	2,370	2,496	2,709	4,043	12,429
INDUSTRIAL											
Industrial Natural Gas Optimization	0	0	0	0	0	0	201	251	437	583	1,471
	0	0	0	0	0	0	201	251	437	583	1,471
EFFICIENCY PROGRAMS SUBTOTAL	0	0	0	0	0	0	6,677	8,162	8,449	8,052	35,310
CUSTOMER SELF-GENERATION											
Bioenergy Optimization	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
PROGRAMS SUBTOTAL	0	0	0	17	582	3,370	6,677	8,162	8,449	8,052	35,310
Support Costs	0	0	0	0	0	0	0	0	0	0	10
ADMINISTRATION COSTS OF PROGRAMS	0	0	0	17	582	3,370	6,677	8,162	8,449	8,052	35,320

Note: Subtotals may not be exact due to rounding.
 * Programs comprise the Commercial Building Envelope Program.

Appendix O

Electric Customer Service Initiatives-Utility Costs

Utility Costs (1000s in 2010\$) Electric Customer Service Initiatives

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2024/25
RESIDENTIAL												
Residential Earth Power Loan	0	2	47	97	347	881	-93	71	209	162	102	1,826
ecoENERGY	0	0	0	0	-10	-43	72	165	-19	143	101	408
Solar Hot Water Heating	0	0	0	0	0	0	0	0	0	7	0	7
R-2000 Component of the New Home Program	0	0	0	0	0	0	0	0	0	0	0	0
Power Smart Residential Loan	45	77	20	9	0	1	10	-1	-6	-74	-37	44
Subtotal	45	79	67	106	336	839	-12	235	184	238	166	2,284
DISCONTINUED/COMPLETED PROGRAMS												
PSEM	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
CSI PROGRAMS SUBTOTAL	45	79	67	106	336	839	-12	235	184	238	166	2,284

Note: Subtotals may not be exact due to rounding.

Utility Costs for Support, Basic Information Services & Customer Service Initiatives and Standards (1000s in 2010\$)
Electric Customer Service Initiatives

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2010/11
CUSTOMER SERVICE INITIATIVES																						
Customer Service Initiatives & Standards	0	0	0	0	0	0	0	0	0	0	45	79	67	106	336	839	-12	235	184	238	166	2,284
BASIC INFORMATION SERVICES																						
Basic Information Services	0	13	6	93	55	11	13	158	478	564	1,304	1,326	1,318	1,683	1,599	1,614	1,313	1,310	1,713	1,701	1,374	
Discontinued/Completed Basic Information Services	0	0	0	4	23	160	141	1	75	253	312	406	298	378	434	391	11	-4	0	0	1	
SUPPORT COSTS																						
Power Smart Communications	9	705	1,509	1,075	525	693	654	572	495	703	628	175	512	468	907	622	594	621	1,134	867	794	
Residential Retrofit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	43	34	125	74	83	52	
Retrofit Demonstrations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	0	5	2	1	0	
Integrated Plans/Targets	20	479	237	216	207	210	64	32	83	163	97	35	363	269	70	23	94	91	174	257	166	
DSM Administration	208	212	180	131	96	117	186	73	40	101	131	188	306	210	239	210	210	160	249	208	220	
DSM Tracking System	0	0	13	23	144	150	13	1	3	0	0	0	0	0	0	0	3	6	1	19	80	
Commercial Audits	0	0	0	0	0	0	0	0	0	0	0	16	22	20	30	39	5	2	0	0	0	
Energy Efficient Screening Studies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	34	
Power Smart Residential Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	53	
Sustainability & Standards	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	84	48	56	181	166	
Power Smart for Business	0	0	141	139	88	51	0	0	0	0	0	0	0	0	0	85	157	213	200	188	168	
Discontinued/Completed Support Costs	0	954	807	425	51	54	120	128	98	60	76	155	196	44	13	8	0	0	0	0	0	
	237	2,350	2,886	2,007	1,111	1,275	1,037	805	716	1,029	932	569	1,400	1,012	1,272	1,119	1,181	1,274	1,888	1,865	1,723	
TOTAL SUPPORT/CSS/STANDARDS	237	2,364	2,893	2,105	1,189	1,447	1,191	964	1,268	1,846	2,593	2,380	3,083	3,180	3,641	3,964	2,492	2,814	3,784	3,803	3,264	
																						50,502

Note: Subtotals may not be exact due to rounding.

Appendix P

Natural Gas Customer Service Initiatives- Utility Costs

Utility Costs (1000s in 2010\$) Electric Customer Service Initiatives

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2024/25
RESIDENTIAL												
Residential Earth Power Loan	0	2	47	97	347	881	-93	71	209	162	102	1,826
ecoENERGY	0	0	0	0	-10	-43	72	165	-19	143	101	408
Solar Hot Water Heating	0	0	0	0	0	0	0	0	0	7	0	7
R-2000 Component of the New Home Program	0	0	0	0	0	0	0	0	0	0	0	0
Power Smart Residential Loan	45	77	20	9	0	1	10	-1	-6	-74	-37	44
Subtotal	45	79	67	106	336	839	-12	235	184	238	166	2,284
DISCONTINUED/COMPLETED PROGRAMS												
PSEM	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
CSI PROGRAMS SUBTOTAL	45	79	67	106	336	839	-12	235	184	238	166	2,284

Note: Subtotals may not be exact due to rounding.

Utility Costs for Support, Basic Information Services & Customer Service Initiatives and Standards (1000s in 2010\$)
Natural Gas Customer Service Initiatives

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Cumulative Total 2010/11
CUSTOMER SERVICE INITIATIVES											
Customer Service Initiatives & Standards	686	402	343	345	5	825	472	-219	-89	-320	2,450
	686	402	343	345	5	825	472	-219	-89	-320	2,450
BASIC INFORMATION SERVICES											
Basic Information Services	175	198	216	489	517	672	463	517	488	363	4,098
	175	198	216	489	517	672	463	517	488	363	4,098
Discontinued/Completed Basic Information Services	0	0	0	0	4	26	-10	0	0	0	20
	0	0	0	0	4	26	-10	0	0	0	20
SUPPORT COSTS											
Power Smart Communications	0	0	0	0	335	396	414	927	709	529	3,311
Residential Retrofit	0	0	0	0	0	62	232	137	155	96	682
Retrofit Demonstrations	0	0	0	0	75	0	5	0	0	0	80
Integrated Plans/Targets	0	0	0	0	72	62	61	142	210	111	659
DSM Administration	0	0	0	0	140	140	107	204	170	146	907
DSM Tracking System	0	0	0	0	0	2	4	1	16	53	76
Commercial Audits	0	0	0	0	17	20	10	0	1	1	48
Energy Efficient Screening Studies	0	0	0	0	0	0	0	0	8	34	43
Power Smart Residential Support	0	0	0	0	0	0	0	0	42	79	122
Sustainability & Standards	0	0	0	0	83	155	90	103	156	111	698
Power Smart for Business	0	0	0	0	0	104	142	133	132	158	670
Discontinued/Completed Support Costs	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	722	942	1,065	1,647	1,600	1,319	7,296
TOTAL SUPPORT COSTS & CSIS & STANDARDS	861	600	559	834	1,249	2,465	1,990	1,946	1,998	1,362	13,864

Note: Subtotals may not be exact due to rounding.