



PO Box 815 • Winnipeg, Manitoba Canada • R3C 2P4
Street Location for DELIVERY: 22nd floor 360 Portage Ave

Telephone / N° de téléphone : (204) 360-3633 • Fax / N° de télécopieur : (204) 360-6147 • ofernandes@hydro.mb.ca

July 14, 2016

Mr. D. Christle
Secretary and Executive Director
Public Utilities Board
400-330 Portage Avenue
Winnipeg, Manitoba
R3C 0C4

Dear Mr. Christle:

**RE: DIRECTIVE 6 OF ORDER 73/15 – 2015/16 ANNUAL REPORT ON THE
AFFORDABLE ENERGY PROGRAM AND POWER SMART
PROGRAMMING FOR ALL-ELECTRIC CUSTOMERS**

On July 24, 2015, the Public Utilities Board of Manitoba ("PUB") issued Order 73/15 with respect to Manitoba Hydro's 2014/15 & 2015/16 General Rate Application. In Directive 6 of its Order, the PUB directed Manitoba Hydro to provide an annual report on the implementation of the Affordable Energy Program ("AEP") and any additional measures developed to increase participation rates in the AEP and to assist all-electric customers, particularly those living in rural Manitoba and aboriginal communities without access to natural gas heating options.

In response to this directive, enclosed please find Manitoba Hydro's Annual Report on the AEP and other Power Smart programming for all-electric customers for the period ending March 31, 2016. Should you have any questions with respect to this submission, please contact the writer at 204-360-3633 or Greg Barnlund at 204-360-5243.

Yours truly,

MANITOBA HYDRO LAW DIVISION

Per:

A handwritten signature in blue ink, appearing to read 'O. Fernandes', written over a horizontal line.

ODETTE FERNANDES
Legal Counsel

Att.

Response to Directive 6 of Order 73/15, Annual Report for the period ending March 31, 2016

Manitoba Hydro shall consider additional measures to increase participation rates in the Affordable Energy Program and to assist all-electric customers, particularly those living in rural Manitoba and aboriginal communities without access to natural gas options, and to provide annual reports on the implementation of the Affordable Energy Program and any additional measures developed by the end of June each calendar year.

INTRODUCTION

During 2015/16, Manitoba Hydro continued its activities under the Affordable Energy Program (“AEP”) to assist lower-income customers in managing their energy use by capturing energy efficient opportunities, which results in lower energy bills.

Manitoba Hydro also continued its efforts to assist those customers who heat their homes with electricity. Manitoba Hydro has enhanced its programs and has undertaken several new projects during 2015/16 to provide additional support to those customers without access to natural gas service.

The following sections of this report provide an overview of customer participation for the 2015/16 fiscal year for Manitoba Hydro’s AEP and Power Smart Programs.

RESIDENTIAL

Affordable Energy Program

The AEP is designed to assist lower income homeowners and renters in implementing energy efficiency upgrades. The program offers free basic energy efficiency measures (e.g. LED light bulbs, showerheads, faucet aerators, window weatherization kits, draft stoppers, safety caps and fridge/freezer thermometers), free insulation upgrades, and the installation of a high efficiency natural gas furnace at a cost of \$9.50/month over 5 years or a rebate of \$3,000 for the installation of a high efficiency natural gas boiler. These upgrades can provide significant energy savings and decrease the customer’s monthly energy bills while increasing the comfort of their home.

The criteria for determining program eligibility are 125% of the Low Income Cut-Off (LICO) thresholds set by Statistics Canada.

Energy efficiency retrofits have been completed in 13,669 homes under the AEP since the inception of the program in 2007. Of the total retrofits, 8,832 insulation projects have been completed and 4,599 furnaces and 107 boilers have been replaced. The following table provides an overview of the AEP participation for 2015/16 fiscal year.

AEP Participation Overview - April 2015 to March 2016	
<u>Initiative</u>	<u>Homes Completed</u>
Insulation Installations	1,266
Furnace Installations	673
Boiler Installations	11
Total Number of Homes Completed (including Basic Efficiency Measures)	2,759

The program is offered through three different approaches, Individual, Community and First Nations, with each approach customized to meet customer needs. The Individual Approach involves customers working directly with Manitoba Hydro's staff and external contractors. Dedicated staff, energy advisors and contractors ensure energy upgrades are completed in a timely manner and provide direct customer service to individuals as needed. Staff work with the customers from the initial application through to the completion of the upgrade.

The Community Approach is designed to assist and encourage lower income Manitobans to participate in the energy efficiency upgrades through various community outreach activities. Manitoba Hydro partners with social housing groups, community groups, social organizations, and non-profit organizations in order to increase AEP program participation through the various groups which represent more than an individual customer.

The First Nations Approach is designed to provide energy efficiency upgrades to First Nations Communities by providing energy efficiency materials, as well as training and funding for labour to enable local residents to install materials.

AEP Activities in 2015/16

The following activities were undertaken during 2015/16 to promote participation in the AEP:

- A Fisher River First Nations video was developed in 2015, showcasing the collaborative efforts between Manitoba Hydro and First Nations communities in pursuing energy efficiency upgrades. Manitoba Hydro intends to create videos with other communities.
- The Neighbourhood Street Pilot Project resumed in the spring of 2015, with Manitoba Hydro staff and the North End Community Renewal Corporation (NECRC) promoting the project door-to-door. This year, events were held each week instead of every two weeks, with a total of 23 events held during 2015. In addition to the current Energy Advocate, Manitoba Hydro funded a second position for the summer to assist in the canvassing activities and following up with customers and landlords

- An online application was developed and launched in July 2015 to allow customers to submit their AEP applications online
- The Community Outreach Program resumed in the summer of 2015 with efforts being focused in rural areas of Manitoba, particularly all-electric areas. Seniors organizations, recreation & community centres, and other public places in these areas were contacted and AEP posters and brochures were distributed to the organizations in the table below.

Name of Organization
Arborg & District Seniors Resource Council
Living Independence for Elders (Ashern)
Prairie Oasis Senior Centre (Brandon)
Dauphin Multi-Purpose Senior Centre
Services to Seniors Serving Erickson, Onanole, Sandy Lake & Areas Inc. (Erickson)
Erickson Recreation Centre
Eriksdale Community Resource Council Inc
Whitney Forum (Flin Flon)
Gillam Recreation Centre
Gladstone Area Seniors Support Program
Seniors Independent Services (Glenboro)
Grandview & District Community Resource Council
Hamiota/Blanchard Senior Services
Two Rivers Seniors Resource Council (Lac du Bonnet)
Lundar Community Resource Council
MacGregor-Austin Senior Support Program
Pembina Community Resource Council (Manitou)
Senior Services of Antler River (Melita/Pierson)
Minnedosa & District Services to Seniors
Morden Services for Seniors, Inc. (Friendship Centre)
Home Assistance Neepawa and District
Louise Community Services for Seniors (Pilot Mound)
Senior Services of Banner County (Russell)
Rosburn Community Resource Council
Selkirk and District Seniors Resource Council
Senior Services of Prairie-Parkland Inc. (Shoal Lake)
St Laurent Recreation Centre
St Laurent Seniors Resource Council
East Beaches Resource Centre (Traverse Bay)

- In addition to these community groups, Manitoba Hydro reached out and distributed AEP program information, posters and applications to four additional Renewal Corporations: the Selkirk Community Renewal Corporation, Flin Flon Neighbourhood Revitalization Corporation, Dauphin Neighbourhood Renewal Corporation and The Pas Neighbourhood Renewal Corporation. Posters were also distributed to three meeting places in the North End: Neechi Commons, Norquay Community Centre, and Luxton Community Centre. In November 2015, a

presentation on the AEP was given at the Portage la Prairie Community Revitalization Corporation.

- As of August 31, 2015, the requirement that a home be built prior to 1999 to be eligible for the program was removed, to allow more lower-income customers access to the program. Previously, customers who met the income threshold but lived in a home built after 1999 were unable to participate in the program. Now these customers are eligible for free basic measures.
- As of August 31, 2015, customers living in multi-unit residential buildings were eligible to participate in AEP. These customers are now eligible to receive free basic measures such as low flow showerheads and faucet aerators, draft stoppers, socket caps, window kits and 4 LED light bulbs. In October 2015, a direct ad mail letter was sent to the landlords of rural multi-unit residential buildings to encourage program participation.
- In addition to consultations with the Manitoba Metis Federation's (MMF) AEP Advisory Committee member, Manitoba Hydro continued to reach out to MMF Regional Offices to promote the program and disseminate information. Program materials and information have been sent to 5 of the Regional Offices with a visit to the Interlake MMF Regional office in September 2015 to further promote the program offering. Manitoba Hydro attended the MMF Annual General Assembly which took place in September 2015. A partnership was developed with the MMF in November 2015 to further promote Power Smart opportunities to its citizens with the use of a Power Smart manual. Each Regional Office would promote and do intake of customers for participation in Power Smart programs.
- Following the success of the Neighbourhood Street Pilot Project with NECRC, Manitoba Hydro is exploring other initiatives under the AEP, within Winnipeg as well as rural all-electric areas. As of November 2015 the Brandon Neighbourhood Renewal Corporation (BNRC) began canvassing bedroom communities near Brandon in order to reach more potential AEP customers. In October 2015, the BNRC did a presentation for WCGtv, which was aired between other local programming.
- Visits to First Nation communities have increased to deliver presentations on Power Smart opportunities and to discuss the development of a Community Energy Efficiency Plan suited to the Community's needs. Recent interactions include meetings with Chief and Council from Tootinoawaziibeeng, Peguis, Tadoule, Shamattawa and Cross Lake to discuss energy upgrades. In November 2015, a presentation was given by Manitoba Hydro staff at the Land and Economic Development Service Program (LEDSP) Environmental Awareness Session (North Session) and another in December 2015 at the LEDSP Environmental Awareness Session (South Session) held by Indigenous and Northern Affairs Canada. In February 2016, Manitoba Hydro gave a further presentation at the Thompson LEDSP Environmental Awareness session on Power Smart Programs for First Nation communities. Ten northern First Nation communities were

represented: Barrens Land, Bunibonibee, Fox Lake, God's Lake, Manto Sipi Cree Nation, Northlands Dene, Sayisi Dene (Tadoule Lake), Tataskweyak (Split Lake), War Lake and York Factory.

Financing Programs

Manitoba Hydro offers a variety of convenient on-bill financing options. Manitoba Hydro promotes these financing options to customers across Manitoba, with an increased focus through print and radio advertising campaign in various all-electric communities to educate customers about financing options offered by Manitoba Hydro.

During 2015/16, the Power Smart Residential Loan provided over \$22.8 million in financing for upgrades for 4,922 customers. Of that amount, \$2.6 million in financing was provided to 544 all-electric homeowners. Popular upgrades under the program among electrically heated households include high efficiency window upgrades and space heating equipment.

Manitoba Hydro's Pay As You Save or PAYS program enables homeowners to upgrade the energy efficiency of their homes and their monthly bill savings pay for the upgrade. During 2015/16, 68 customers chose the PAYS option for financing their upgrades.

The Residential Earth Power Loan offers convenient on-bill financing for four different sustainable energy technologies. During 2015/16, this program was expanded to include two new technologies, solar photovoltaic and cold climate air source heat pumps, in addition to the solar thermal water heaters and geothermal heat pumps originally included under the program. Financing these systems will assist electric heated customers make energy efficient upgrades to their homes and adopt alternative energy sources. A total of 11 customers received financing under the Residential Earth Power Loan during 2015/16, including 10 customers in rural all-electric areas.

Community Geothermal Program

The Community Geothermal Program provides funding and financing to support the installation of geothermal heat pump systems in First Nation communities. Manitoba Hydro's PAYS Financing Program allows community members to pay for the majority of the geothermal system through the energy savings realized by converting their heating/air conditioning systems to a geothermal system.

Through a partnership with AKI Energy, a non-profit indigenous social enterprise, the program creates job opportunities and training for First Nations to install and maintain the geothermal systems. In 2015/16, 67 geothermal heat pump systems were installed under this program, in four participating First Nation communities including Peguis First Nation, Fisher River Cree Nation, Long Plains First Nation, and Sagkeeng First Nation. Additional communities were also approached in 2015/16, with Waywayseecappo First Nation signing a Band Council Resolution to participate in the program.

Community Energy Plan Initiative

Starting in the fall of 2015, Manitoba Hydro engaged in discussions with The Pas and Dauphin to approach energy efficiency at the community level. Manitoba Hydro and these communities will work together, during this two year pilot, on a community approach to energy efficiency by establishing a Community Energy Plan. These plans will serve as a guide for each community to undertake energy efficiency upgrades in the residential, commercial, and industrial sectors to reduce energy consumption.

With the majority of customers using electricity for space heat in The Pas and almost half using electricity for space heat in Dauphin, it's anticipated this pilot will assist with the reduction of utility bills and overall operating costs for customers situated in those communities. Manitoba Hydro will provide support for community officials to establish goals and objectives, prioritize their energy efficiency efforts and create a culture of conservation and sustainability. The Community Energy Plans will leverage Manitoba Hydro's Power Smart programs to assist in achieving these objectives. Taking a community approach to energy efficiency allows for community members to be active participants and work together in achieving a common goal.

Home Insulation Program

The Home Insulation Program (HIP) has been offering insulation level upgrade education and rebates to Manitoba Hydro customers since 2004. In June 2014, free in-home energy reviews were introduced under this program for all-electric customers. The in-home review initiative was launched in an effort to reduce market barriers preventing a customer from upgrading their home's insulation by providing them with guidance on insulation upgrades, their benefits and the HIP offerings. The in-home audit is supplemented by promoting other value-added services, such as the installation of basic water and lighting measures (i.e. Water and Energy Saver Program and Residential Lighting Program). The advisor also recommends the Affordable Energy Program and Refrigerator Retirement Program, where applicable.

The communication strategy for this initiative involves sending addressed mail and warm calling customers in rural locations to encourage participation. To the end of 2015/16, 25,278 letters have been delivered and 160 calls have been made in 424 targeted communities and towns where all-electric customers reside. This initiative has resulted in 1,738 customers participating in the free audit, an approximate seven per cent response rate. Of these customers, 258 audit participants applied to Home Insulation Program, representing an approximate 15 per cent conversion rate.

In 2015/16, radio, outdoor, and print advertisements were run in rural markets for the Home Insulation Program. Additionally, joint advertising campaign with the Commercial Building Envelope Program launched in August 2015 for rural markets.

LED Lighting Program

An annual spring and fall retail rebate campaign is offered province-wide under the LED Lighting Program. From March 12 to April 12, 2015 and from October 1 to October 31, 2015 customers were offered up to 50% off instant rebates on ENERGY STAR® certified LED bulbs. The province-wide campaigns were offered at approximately 35 participating retail locations in 25 all-electric communities.

Refrigerator Retirement Program

The Refrigerator Retirement Program, launched in June 2011, continues to provide free in-home pick-up of older working refrigerators and freezers and provides a \$50/unit incentive to homeowners. During 2015/16, the program had 1,086 participants in all electric areas, and a further 1,583 participants in gas available area where their heating fuel was electricity. A total of five First Nation Homes also participated in the program. Bill inserts and geographic targeted print and radio advertising was used to reach potential program participants.

Smart Thermostat Pilot

Manitoba Hydro is engaged in a Smart Thermostat Pilot to evaluate the energy savings potential of wi-fi connected smart thermostats, in gas-heated and electric-heated homes with forced-air furnaces throughout the province. The study currently has 185 active participants, of which 86 are all-electric customers.

Water & Energy Saver Program

The Water and Energy Saver Program is offered throughout Manitoba whereby customers can apply to receive a free kit in the mail. In addition, as part of the Program, contracted technicians go door-to-door in target areas offering on-the-spot installation of energy efficient devices. In 2015/16, technicians visited 62,991 homes in rural communities. Overall, the direct install initiative targeted 33 communities, of which 11 were in non-gas available areas.

COMMERCIAL

Power Smart Shops Program

The Power Smart Shops Program was launched in October 2015. The program promotes water and energy saving measures to the hard to reach small commercial customer. The barriers to energy efficiency experienced in this market segment are that customers have limited time, financial resources, and industry exposure which the Power Smart Shops Program endeavors to address.

The Power Smart Shops Program utilizes a full-service contractor delivery model and consists of a two-part offering. First, the direct-installation of various free measures such as bathroom and kitchen faucet aerators, low-flow pre-rinse spray valves, and light emitting diode (LED) screw-in lamps are completed. Second, a free lighting assessment and written report that identifies energy-saving opportunities to retrofit inefficient lighting systems, such as T12 fluorescent ballasts and lamps is completed. The program will cover up to 70% of all material, labour, and electrical permit costs associated with the retrofit opportunities identified in the free lighting assessment.

During 2015/16, 164 customers participated in the Power Smart Shops Program. Although initial program launch efforts were focused in Winnipeg, Manitoba Hydro also targeted and successfully gained participation from customers located in Steinbach, Winkler, La Salle, Selkirk, Oakbank, St-Pierre-Jolys, and Ste. Anne.

In addition to continuing to promote the Power Smart Shops Program to Winnipeg customers, Manitoba Hydro will be targeting several communities in rural Manitoba, including Brandon, Portage, and across the Interlake region during 2016/17. The Interlake region includes numerous all-electric communities including Arnes, Argyle, Ashern, Eriksdale, Fisher Branch, Gypsumville, Hecla, Meleb, Moosehorn, Netley, Oak Point, Pine Dock, Skownan, and Steep Rock.

Commercial Geothermal Program

Effective February 15, 2016, Commercial Geothermal Program incentive levels were doubled and program enhancements were made to the eligibility criteria to address existing market barriers, including high capital cost and poor system design. Program changes were made in order to address the upfront capital cost and with the objective of increasing geothermal technology adoption in all electric areas. To the end of March 31, 2016, 5 customers in rural all-electric buildings participated in the program.

Commercial Audit – Garden Hill First Nation

An energy audit was conducted August 2015 in Garden Hill First Nation. There were 14 facilities audited representing 75 per cent of the annual energy use for band buildings. The findings identified measures and recommended energy saving opportunities and projects for the community to pursue. In addition to this report, an additional report was provided by Aki Energy outlining opportunities to reduce energy consumption and these opportunities are currently being assessed.

PROGRAM PARTICIPATION

The following table outlines participation by all electric heated customers in residential and commercial Power Smart Programs in 2015/16.

Participation in Power Smart Programs (all electric) – FY 2015/16

Program	Urban All Electric Homes/Buildings	Rural All Electric Homes/Buildings	First Nations Homes	Total
RESIDENTIAL				
Affordable Energy Program	39	164	1,517	1,720
Residential Earth Power Loan	1	10	0	11
Financing Programs (PSRL & PAYS)	150	390	72*	545
Home Insulation Program	47	872	0	919
Community Geothermal	n/a**	n/a**	67	67
Refrigerator Retirement Program	185	2,440	5	2,630
Smart Thermostat Pilot	17	69	0	86
Water & Energy Saver Program	7,709***	2,595	not applicable****	2,595
COMMERCIAL				
Power Smart Shops	152	12	-	164
Commercial Geothermal	0	5	0	5
Total				

*Includes participation in the Community Geothermal program

** The Community Geothermal Program provides funding and financing to support the installation of geothermal heat pump systems in First Nation communities only.

***Denotes electric water heaters. The Water and Energy Saver Program does not collect/track space heating fuel type.

****Water and energy saving devices are provided to First Nation Homes through the Affordable Energy Program – Power Smart First Nation Program.