

MANITOBA HYDRO
2012/13 & 2013/14 GENERAL RATE APPLICATION

VOLUME I

DEMAND SIDE MANAGEMENT

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7.0 OVERVIEW OF TAB 7

Tab 7 provides an overview of Manitoba Hydro’s Demand Side Management (“DSM”) program. Section 7.1 discusses the benefits of DSM, Section 7.2 discusses the current DSM plan, and Section 7.3 provides a summary of the progress of Power Smart Programs to date.

7.1 BENEFITS OF DSM

Manitoba Hydro’s DSM initiative, “Power Smart”, consists of energy conservation and load management activities designed to lower the demand for electricity and natural gas in Manitoba. For the electric business, the initiative is one element of the resource options available for meeting the province’s electrical needs and the initiative plays an important role in the Corporation’s overall integrated resource plan.

DSM initiatives are designed to assist customers in meeting their energy needs through energy efficient measures. For the electric business, such initiatives enable Manitoba Hydro to serve domestic customers with less energy based on reduced domestic load requirements which allows for reduced capital expenditures and increased energy available for export. Electric DSM initiatives are evaluated utilizing the same underlying criteria and the same economic evaluation approach as used with alternative resource options.

Manitoba Hydro’s Commercial Lighting Program is one example of an electrical energy efficiency initiative promoting the installation of lighting technologies that use less energy than conventional technologies but provide similar lighting levels. A number of other energy conservation initiatives are offered including, but not limited to the Home Insulation Program, the Water & Energy Saver Program, the Refrigerator Retirement Program, the Lower Income Energy Efficiency Program, the Residential Earth Power

1 Loan (Geothermal Heat Pumps), the Commercial New Buildings Program, the
2 Commercial Refrigeration Program, the Commercial Building Envelope Program, and
3 the Industrial Performance Optimization Program.
4

5 Load management initiatives provide economic benefits to Manitoba Hydro. These
6 initiatives are designed to modify customer demand for energy at a particular time, or
7 shift demand from one period to another, allowing for more lucrative export sales.
8 Manitoba Hydro's Curtailable Rates Program is an example of a load management
9 initiative where participating customers curtail or "turn off" a contracted amount of load
10 at Manitoba Hydro's request for a specified period of time.
11

12 **7.2 CURRENT DSM PLAN**

13
14 Manitoba Hydro's DSM plan involves a continued commitment to pursuing the
15 maximum cost effective DSM savings achievable. Under Manitoba Hydro's most current
16 long range plan for DSM, "The 2011 Power Smart Plan", (see Appendix 7.1), energy and
17 demand savings resulting from Power Smart initiatives (including savings to date) are
18 targeted to achieve 3,283 GW.h/year and 906 MW by 2025/26. This plan represents a
19 significant investment and commitment by the Corporation.
20

21 **7.3 SUMMARY OF PROGRESS TO DATE**

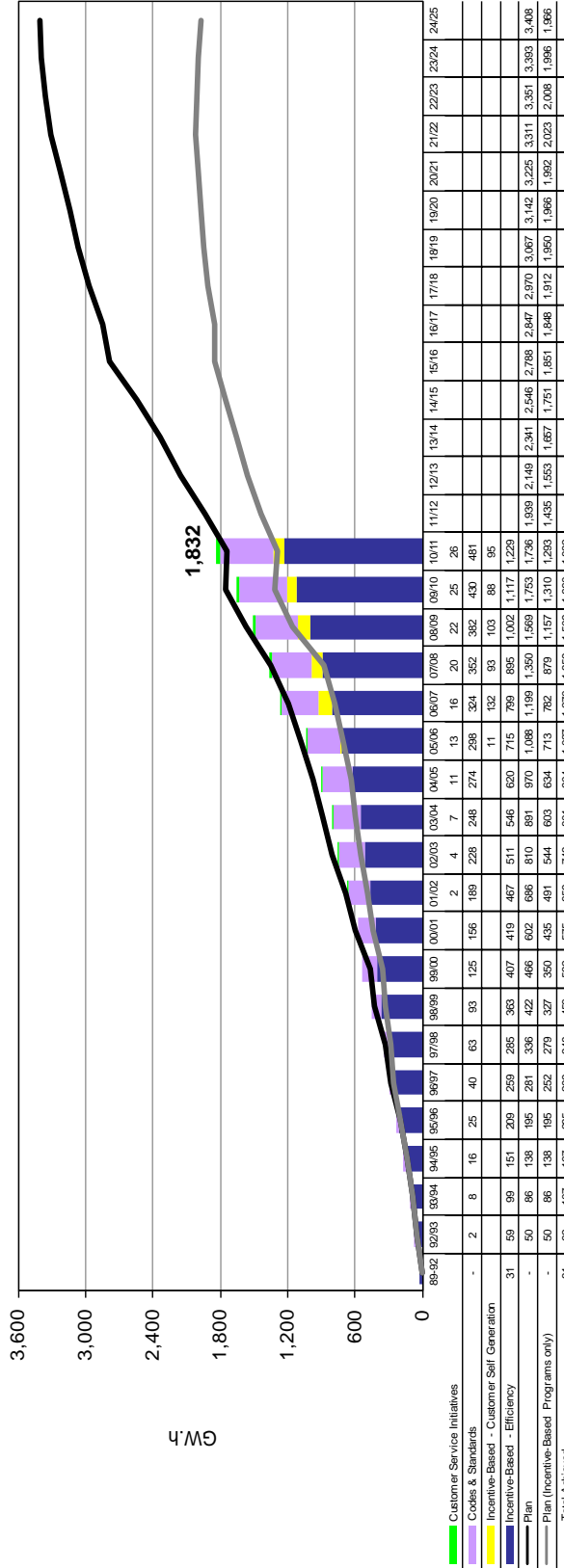
22
23 Manitoba Hydro's Power Smart Programs have been and continue to be very successful.
24 Appendix 7.2 provides a copy of the 2010/11 Power Smart Annual Review. The energy
25 savings realized during 2011/12 are currently being evaluated with the report expected to
26 be finalized in early-2013. By the end of 2010/11, Power Smart Programs are estimated
27 to have achieved an annual load reduction of 1,832 GW.h in energy and 557 MW in
28 winter peak demand (at generation). These Power Smart electrical savings translate into a
29 cumulative reduction of \$465 million in customer bills to date and indirect greenhouse
30 gas emission reductions of approximately 1,345,000 tonnes of carbon dioxide equivalent
31 emission in 2010/11 alone. The cumulative energy and demand reduction achieved
32 through the Corporation's DSM efforts is on target with meeting the forecast energy
33 savings.
34

35 Figures 7.3.1 and 7.3.2 depict the energy and demand savings realized through to
36 2010/11.
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Figure 7.3.1

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



1 **Figure 7.3.2**
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3

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

