

**MANITOBA**  
**THE PUBLIC UTILITIES BOARD ACT**  
**THE MANITOBA HYDRO ACT**  
**THE CROWN CORPORATIONS PUBLIC**  
**REVIEW AND ACCOUNTABILITY ACT**

**Order No. 57/09**

**April 28, 2009**

**BEFORE:** Graham Lane, C.A. Chairman  
Robert Mayer, Q.C., Vice-Chairman  
Susan Proven, P.H. Ec., Member

**APPROVAL OF AN EXTENSION OF MANITOBA HYDRO'S  
SURPLUS ENERGY PROGRAM**

## **Overview of the Surplus Energy Program (SEP)**

Manitoba Hydro's Surplus Energy Program (SEP) was first approved by the Public Utilities Board (Board) in Order 90/00, dated June 30, 2000, as a replacement program for three other service programs: Industrial Surplus Energy Program; Dual Fuel Heating Program; and Surplus Energy to Self Generators Program.

Under the SEP, Manitoba Hydro (MH) makes surplus energy (i.e. energy surplus to the Utility's domestic and export requirements) available on an interruptible basis to its General Service customers, under three options:

1. Industrial Load: > 1000 kV.A monthly demand (and less than 25% of total load);
2. Space and/or Water Heating: > 200 KW per month (separately metered with full back-up); or
3. Self-Generation Displacement: 200 KW to 50,000 KW with a load factor of 25% (separately metered with full on-site back-up).

MH's SEP primarily displaces export sales, but the energy supplied by MH to SEP customers may be supplemented from import supplies, though at much higher costs than domestically supplied energy.

SEP energy prices for the spot market are forecast by MH on a weekly basis for each of peak, off-peak and shoulder times, and submitted weekly for Board approval.

## **Background**

In MH's last General Rate Application, the Utility sought immediate interim approval from the Board to extend the SEP to October 31, 2008, together with final Board approval to extend the SEP to March 31, 2013, without any changes to the terms and conditions of the program.

In Order 136/07 the Board granted the extension of the SEP until April 30, 2009, on an interim basis, to permit a more thorough examination of this program at the public hearing into MH's 2008/09 General Rate Application.

Following the public hearing of MH's 2008/09 General Rate Application, the Board issued Order 116/08, it contained the following Board Findings with respect to SEP:

*The Board is concerned with MH's marketing practices that yield extremely low prices for off-peak exports, and suggests that retaining energy in storage may prove more beneficial in the longer term than selling power for extremely low prices. The Board acknowledges that MH may be operating the system at near optimal levels to avoid "spilling" water, but there may be a benefit to spilling when prices get too low.*

*MH will be directed to provide a report to the Board by January 15, 2009 evaluating the Surplus Energy Program; the report should employ monthly historical data from 2000 to 2008 to analyze and compare the benefits and costs of the actual operation of the hydraulic generating system pursuant to various less aggressive sales strategies. This report should address the relative merits of withholding surplus energy from sales at off-peak periods.*

By way of an Application to Review and Vary the Board's SEP Direction in Order 116/08, MH sought additional time to compile its report. And, in Order 150/08, the Board extended the timeline for MH to file the SEP Report until the end of February 2009.

## MH's SEP Report

MH's March 2009 Report on the SEP provides a helpful perspective on the current status and the evolution of SEP since 1999. In general terms, the SEP has been useful to approximately 25 General Service Medium customers and 6 General Service Large (< 30 kV.) customers over eight years, supplying 20-30 GW.h of electricity at Board approved rates that were and are forecast to equate to export market prices.

In offering lower cost electricity to these General Service customers, MH has achieved an average annual net income of \$40,000 (3% of gross) on SEP sales billings of about \$1.3 Million/year.

## Board Finding

In reviewing the response to the Board Directive #27 in Orders 116/08 and 150/08, the Board finds that in 2007/08, the SEP continued to primarily displace export sales going into the U.S.-MISO market. An approximate breakdown can be inferred from the report for the 2007/08 year as:

	<b>Five Winter Months (N/D/J/F/M)</b>	<b>7 Other Months (A/M/J/J/A/S/O)</b>
Peak	4.0 GWh (7-8¢ KW.h)	1.6GWh (7-10¢ KW.h)
Shoulder	7.0 GWh (5-6¢ KW.h)	2.6 GWh (4-6¢KW.h)
Off-Peak	5.5 GWh (3-4¢ KW.h)	1.7 GWh (1.5-2.5¢ KW.h)
<b>Total</b>	<b>16.5 GWh</b>	<b>5.9 GWh</b>

MH's response to PUB Directive #27 in Orders 116/08 and 150/08 focuses on the continued average annual sales under SEP during the off-peak in each year. MH concludes that the SEP is, on an annual average, entirely compatible with export sales practices and, hence, does not negatively affect the Utility's financial situation.

MH argues further that to deny GSM and  $GSL < 30$  customers access to low-cost off-peak power would have significant cost implications for those customers. Given that the SEP has been modestly profitable over an eight-year period, there is neither an apparent nor an urgent reason to increase SEP pricing or limit access.

Unfortunately, the average annual assessment of the SEP has been influenced by the relatively high (76% in 2007/08) proportion of energy usage in the five winter-like months, when off-peak sales prices have tended to be near 4¢/KW.h. The other 24% of off-peak energy usage sale prices of about 2¢/KW.h appears typical of the last three or four years.

MH has not fully addressed the Board's basic concern of selling off-peak power at extremely low prices either on the export market or, coincidentally, under the SEP. It is the Board's view that energy sales at less than 2-3¢/KW.h provide only nominal revenues while increasing the risk of periodic energy shortfalls having to be met by domestic consumers at much higher prices.

The Board finds that night-time (11:00 p.m. to 7:00 a.m.) export sales during the four summer months can have values of less than 1¢/KW.h and may only be achieving about \$10-15 Million/year in revenue. Yet, these sales can potentially result in an annual loss of at least \$50 Million on a periodic basis.

While MH has suggested such a loss might have a frequency of once in ten years, the actual frequency would seem to be more like every three or four years considering 2002/03 and 2006/07. On top of this is the threat of a 2003/04 drought event (expected once in 15 years), or a five to seven year long drought (experienced twice in the last 100 years).

The Board needs a more in-depth understanding of whether domestic consumers are at less risk if MH were to avoid night-time export sales in the summer months, prior to October 1<sup>st</sup> in each year, as a part of a reservoir operational reserve requirement. The Board considers that a higher frequency of spilling water could be justified on a reduced risk approach to reservoir operation, and will require further analysis by MH.

Rather than investigating and trying to resolve this issue as part of the SEP, the Board will include consideration of the public interest in the continued sale of off-peak overnight summer exports in conjunction with Directives #2 of Orders 116/08 and 150/08, where the Board requires “MH to work co-operatively with Board Staff and/or Advisors to develop a process that will enhance the Board’s understanding of MH’s export program and its potential impact on domestic rates...”

The Board will therefore approve the extension of the SEP to March 31, 2013 and review the pricing concerns in conjunction with MH’s export program.

**IT IS THEREFORE ORDERED THAT:**

1. MH's request to extend the Surplus Energy Program to March 31, 2013  
BE AND IS HEREBY APPROVED; and
2. MH expressly include, in both its response to Directive #2 of Order 150/08  
and its report to the Board on its export program, explanation and  
justification for continued sales of off-peak overnight summer exports.

THE PUBLIC UTILITIES BOARD

"GRAHAM LANE"  
Chairman

"GERRY GAUDREAU, CMA"  
Secretary

CERTIFIED A TRUE COPY OF ORDER  
NO. 57/09 ISSUED BY THE PUBLIC  
UTILITIES BOARD

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Secretary