REPORT TO

THE PUBLIC UTILITIES BOARD

REBALANCING OF

DEMAND AND ENERGY CHARGES

JULY 2009

Manitoba Hydro

REBALANCING OF DEMAND AND ENERGY CHARGES

PUB Order 116/08, Directive 24 required Manitoba Hydro *"to plan to re-balance demand and energy charges on a revenue neutral basis, and submit a 5-year transition plan for the Board's approval at the earliest of June 30, 2009, or the next GRA".*

The PUB has indicated concern with the proportion of recovery of costs from General Service demand billed customers since Order 7/03 in February, 2003. Manitoba Hydro has acted on this concern and, as described in more detail below, has significantly accomplished demand/energy rate rebalancing as contemplated in Order 7/03. If further rebalancing is desired, it could be provided with a Time-of-Use design for General Service Large and seasonal rate differentiation for General Service Medium and General Service Small Demand.

Directives Prior to August 1, 2007

Order No. 7/03 dated February 3, 2003 required Manitoba Hydro to file with the Board "*a study on the impact of decreasing the demand charge and increasing the tail block of the energy charge."* In making this directive the Public Utilities Board (PUB) expressed an opinion that some of Manitoba Hydro's demand charges were in the mid to high range as compared to other Canadian jurisdictions, while the utility's energy charges were amongst the lowest in Canada.

In subsequent Orders (117/06 dated August 2, 2006 and Order 20/07 dated February 27, 2007), the Public Utilities Board directed Manitoba Hydro to file "*a report and recommendations with respect to rebalancing demand and energy charges."* Manitoba Hydro responded to this directive in its GRA filing of August 1, 2007. The response noted that Manitoba Hydro was making progress in rebalancing its rates.

Since March 2003, Manitoba Hydro has continued to design General Service rates such that the demand charge has gradually declined or remained approximately the same for the various rate classes. When rate decreases were applied to these classes, as they were on April 1, 2003, the revenue decreases were applied solely to the demand charges. When rate increases were applied to these classes, as they were August 1, 2004, April 1, 2005, March 1, 2007, July 1, 2008 and April 1, 2009, the revenue increases were applied only to

the energy charges. A comparison of the rates charged by Manitoba Hydro in March 2003 to the current April 2009 rates is shown below in Table 1.

Table 1 – Evolution of General Service Demand and Energy Rates since 2003

	March 2003 Rates		April 2009 Rates		% Change	
	Demand	**Energy**	**Demand**	**Energy**	**Demand**	**Energy**
Small *	$8.41	2.12¢	$8.34	2.86¢	(0.1%)	34.9%
Medium	$8.32	2.12¢	$8.34	2.86¢	0.2%	34.9%
Lrg <30	$7.089	2.010¢	$7.08	2.73¢	0.0%	35.8%
Lrg30-100	$6.363	1.975¢	$6.06	2.58¢	(4.8%)	30.6%
Lrg >100	$5.751	1.975¢	$5.40	2.52¢	(6.1%)	27.6%

* The first 50 kV.A for General Service Small are at no charge and the energy charge reflects the run-off rate, as is the case for General Service Medium for rates effective April 1, 2009.

The August 2007 filing also noted that the end state for "rebalanced" rates is premised on recovering all allocated costs of Generation through the energy charge, and all remaining class revenue through the demand charge. Recognizing the PUB's desire to reduce demand charges and, further, noting the emerging practice in deregulated jurisdictions to recover supply costs through energy charges only, it suggested that it may be appropriate to recover, through demand charges, only the demand-related costs of Transmission, Subtransmission and Distribution. Generation costs could be recovered through energy charges, time-differentiated where appropriate and practical. If this approach were to be taken, a corresponding Cost of Service methodology, that is 100% classification to energy, would be appropriate for the Generation Function.

Order 117/06 confirmed the PUB's acceptance of 100% time-differentiated energy classification of Generation and 100% demand classification of Transmission and Subtransmission. On this basis, rebalancing is taken to mean shifting cost recovery toward matching the embedded cost determination in the post 2006 version of the Cost of Service Study.

Tables 2 and 3 on the next page demonstrate significant progress in rebalancing demand and energy charges, based on the targets as they appeared in 2003. For General Service Small and Medium, over 80% of the demand rebalancing and over 70% of the energy rebalancing that would have been contemplated in 2003 has been achieved. For the General Service Large classes, over 50% of the demand rebalancing and over 60% of the energy rebalancing have been achieved.

Table 2

General Service Demand / Energy Rate Rebalancing: Progress Since 2003					
Rate ¢ per kW.h Energy					
	Small	**Medium**	**Large <30**	**Large 30-100**	**Large >100**
Rate as of March 2003	2.12¢	2.12¢	2.01¢	1.98¢	1.98¢
Rate Mar 2003 if rebalanced	2.54¢	2.54¢	2.50¢	2.30¢	2.28¢
Class cumulative rate increase to April 1, 2009	17.47%	17.79%	18.52%	16.15%	16.44%
March 2003 rate adjusted for increases	2.49¢	2.50¢	2.38¢	2.29¢	2.30¢
Rebalanced Mar 2003 rate adj for increases	2.98¢	2.99¢	2.97¢	2.67¢	2.66¢
Current rate April 2009	2.86¢	2.86¢	2.73¢	2.58¢	2.52¢
Rebalanced progress	75%	73%	59%	76%	62%

Table 3

General Service Demand / Energy Rate Rebalancing: Progress Since 2003					
Rate $ per kV.A Demand					
	Small	**Medium**	**Large <30**	**Large 30-100**	**Large >100**
Rate as of March 2003	$8.41	$8.32	$7.09	$6.36	$5.75
Rate Mar 2003 if rebalanced	$6.98	$6.79	$5.07	$4.53	$3.58
Class cumulative rate increase to April 1, 2009	17.47%	17.79%	18.52%	16.15%	16.43%
March 2003 rate adjusted for increases	$9.88	$9.80	$8.40	$7.39	$6.70
Rebalanced March 2003 rate adj for increases	$8.20	$8.00	$6.01	$5.26	$4.17
Current Rate April 2009	$8.34	$8.34	$7.08	$6.06	$5.40
Rebalanced Progress	92%	81%	55%	63%	51%

Order 116/08

Notwithstanding the significant progress depicted above, the PUB Order116/08 characterized rebalancing to date as follows:

"MH still has a considerable way to go before revenues and costs for GSL demand and energy are in balance. Of particular note is that GSL <30 KV class revenues and rates are under-collecting for both energy and demand."

Also, *"MH's rate structure has for many years been over-collecting on demand charges and under-collecting on energy charges relative to COSS allocations."*

In support of such observations, the Order depicted *"the March 2007 imbalance situation, when comparing PCOSS-08 allocated costs to revenue at March 2007 rates"* in a table, reproduced below as Table 4.

Table 4 – General Service Demand and Energy Rates vs, Allocated Cost at August 1, 2007

	Mar 1/07 Rate (Demand)	117/06 Allocated Cost	Rev/ Cost %	Mar 1/07 Rate (Energy)	117/06 Allocated Cost	Rev/ Cost %
GSS	8.34	6.92	120%	2.55	2.65	96%
GSM	8.34	7.09	118%	2.55	2.68	96%
GSL <30	7.08	7.94	89%	2.38	2.61	91%
GSL 30-100	6.06	4.26	142%	2.29	2.44	94%
GSL >100	5.40	2.21	244%	2.26	2.41	94%

Notable in Table 4 is that the targets, the Revenue Cost Coverages, have changed since 2003, in response to changes in the Cost of Service methodology, some of which were directed by the PUB. For example, the allocated demand cost per kV.A for General Service Large >100 kV is shown as $2.21 in Table 4. This compares with the target objective of $4.17 - the 2003 RCC updated for rate changes - as shown in Table 3, above. Similar changes can be noted for the General Service Large 30-100 kV class ($4.26 vs. $5.26) and the General Service Medium class ($7.09 vs. $8.00). A change in the opposite direction occurred for the General Service Large <30 kV class ($7.94 vs. $6.01).

A different picture emerges when Table 4 is updated to incorporate the results of the updated 2008 Cost of Service Study as filed with the PUB in February 2009. These results are depicted below in Table 5. This shows a significant closing of the gap with respect to the

relationship between allocated demand costs and the demand charges in place as of April 1, 2009. Even more significantly, for every class, the energy rate now exceeds the allocated energy cost.

Table 5 – General Service Demand and Energy Rates vs. Allocated Cost at April 1, 2009

	Apr 1/09 Rate (Demand)	2008 Allocated Cost	Rev/Cost %	Apr 1/09 Rate (Energy)	2008 Allocated Cost	Rev/Cost %
GSS	8.34	7.40	113%	2.86	2.52	113%
GSM	8.35	7.97	105%	2.86	2.52	113%
GSL <30	7.08	8.96	79%	2.73	2.45	111%
GSL 30-100	6.06	4.99	121%	2.58	2.23	116%
GSL >100	5.40	3.51	154%	2.52	2.22	114%

Other Considerations in Demand Energy Rebalancing

Order 116/08 Directive 24 appears to be premised, as before, on rebalancing by moving charges for demand and energy toward their embedded costs as depicted in the cost of service study. Manitoba Hydro continues to disagree, respectfully, with the PUB in regard to several of its instructions as to how the study is to be carried out, and continues to believe that the unit costs for both demand and energy, for at least some customer classes, are not correctly represented in Table 5 above. However, for purposes of rate rebalancing, Manitoba Hydro is prepared to accept that the relative distribution of costs between demand and energy is reasonable for those classes which are demand billed, with the possible exception of General Service Large < 30 kV.

Going beyond, the premise of rebalancing based on embedded cost allocations, Manitoba Hydro accepts in principle the rationale that some costs, which are demand-related, could be collected in a peak period energy charge in situations where infrastructure for Time-of-Use billing is in place. This rationale was discussed at some length during the proceeding leading up to the issuance of Order 116/08 and was particularly promoted by the witness for RCM/TREE during that proceeding.

Currently, the infrastructure for billing Time-of-Use rates is in place for all customers in the General Service Large >100 kV and the General Service Large 30-100 kV classes. The infrastructure is in place for about 63% of customers in the General Service Large <30 kV class. For a relatively modest investment in the order of $250,000 interval metering and

communications to facilitate Time-of-Use billing could be installed at the remaining General Service Large <30 kV sites.

For the remaining demand billed classes, General Service Medium and General Service Small Demand, such infrastructure is in place only for the relatively small number of customers who are included in Manitoba Hydro's load research sample. Significant cost would have to be incurred to install it at approximately 1,900 General Service Medium customer sites and 11,500 General Service Small Demand customer sites. Installation of Time-of-Use metering and communication at these sites may occur at some point in the indefinite future and a Time-of-Use rate structure with higher on peak energy charges could be contemplated for those customer classes at that time.