

REPORT TO
THE PUBLIC UTILITIES BOARD

LIMITED USE OF BILLING DEMAND

2013/14

September 2014



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REPORT TO PUBLIC UTILITIES BOARD ON THE LIMITED USE OF BILLING DEMAND RATE OPTION

SUMMARY

This report on the Limited Use of Billing Demand (“LUBD”) rate option covers the period April 1, 2013 to March 31, 2014. During this period there were 81 customers on the LUBD rate, of which 59 are classed as General Service Small, 16 are General Service Medium, and 6 are General Service Large.

The LUBD rate option, implemented on July 1, 2000, is a rate option that Manitoba Hydro offers to address the concerns of low load factor customers. These customers, if billed on standard General Service Demand rates, are affected by high demand charges in comparison to relatively low energy use, resulting in a high cost of energy per kilowatt-hour. Customers on LUBD have a lower impact on the system peak compared to the overall General Service class, as is evident by their low winter coincidence factor of 31%.

Billing on LUBD rates as opposed to standard General Service Demand rates has saved LUBD customers approximately \$290,000 during the 2013/14 fiscal year. This represents annual savings of approximately \$3,600 per LUBD customer or \$300 per customer per month.

BACKGROUND

In Order 91/00, dated June 30, 2000, the Public Utilities Board of Manitoba (“PUB”) approved Manitoba Hydro’s LUBD program, on an interim basis, as a temporary rate offering for a two-year period commencing July 1, 2000. The program became a permanent rate offering in Order 116/08 dated July 29, 2008, when the PUB granted final approval of the terms and conditions of the LUBD and directed Manitoba Hydro to file status reports on the LUBD rate option on an annual basis.

The LUBD rate was introduced to address the high unit energy costs faced by a relatively small number of customers with very low load factors. These customers, who set high demands relative to their overall energy use, were opposed to paying high demand charges when they used little energy. Under the program, customers could opt for a lower demand charge in exchange for a higher energy charge. Demand charges are intended to recover at least a portion of the

utility's costs incurred to meet the peak load that do not vary with a customer's consumption. The LUBD rate option recognizes that low load factor customers, as a group, have a much lower ratio of coincidence with system peak periods than typical General Service customers, and therefore, the cost associated with meeting the peak of low-load factor customers is lower.

DESCRIPTION

The LUBD rate was designed such that demand customers would be indifferent between this rate and the standard General Service rate for which they otherwise qualify at a billing load factor of approximately 18%. At billing load factors less than 18%, customers could reduce their overall bills by paying a higher energy charge in exchange for a lower demand charge.

There is no change in the Basic Charge or determination of the Billing Demand when customers choose LUBD over standard rates.

ELIGIBILITY

All General Service Demand customers are eligible for the LUBD rate but only those customers with low energy use relative to their billing demand will benefit from selecting this option. Customer savings depend on the manner in which the business operates and consumes energy. This means that two customers with the same average annual billing load factor may not see the same results, and a lower annual billing load factor does not necessarily mean more savings. For example, a GS Small Demand customer who exceeds 50 kV.A in only a few months of the year may save little in Demand Charges if they are on LUBD (and pay for all energy at the higher LUBD Energy rate) compared to a customer with an identical billing load factor that exceeds 50 kV.A by a significant margin in most or all months of the year.

LUBD customers who elect to convert back to the standard General Service Rate are not eligible to participate in the LUBD rate option for the next 12 months.

CUSTOMER PARTICIPATION

There were a total of 81 customers that billed on the LUBD rate in the 2013/14 fiscal year, an overall decrease of 2 customers from the 2012/13 fiscal year.

The majority of customers on LUBD continue to be in the General Service Small Demand rate class as shown in Table 1 which provides a summary of the number of customers, by rate class, participating in the LUBD rate option in 2013/14:

Table 1

Rate Class	No. of Customers
General Service Small	59
General Service Medium	16
General Service Large (750 V to 30 kV)	3
General Service Large (> 100 kV)	3
Total	81

In the 2013/14 fiscal year, the majority (approximately 85%) of LUBD customers had an annual billing load factor of 20% or less, as shown in Table 2. Customers with a load factor over 20%, or customers not benefiting on LUBD, are referred to their Manitoba Hydro Representative for review.

Table 2:

Billing Load Factor	No. of LUBD Customers
0% - 5%	19
6% - 10%	15
11% - 15%	24
16% - 20%	11
over 20%	12
Total	81

The billing load factors for LUBD customers are considerably lower than billing load factors associated with typical General Service customers. Based on 2013/14 billing data, the billing load factor for regular General Service customers was 45% for GS Small Demand, 53% for GS Medium, 59% for GS Large 750 V to 30 kV, and 80% for GS Large > 100 kV.

Load Research data for 2012/13 indicates that the peak coincidence factor for the LUBD class is also lower than the class average peak coincidence factor, as shown in Table 3 below:

Table 3:

Rate Class	Summer Coincidence Factor %	Winter Coincidence Factor %
LUBD	42%	31%
GSS Demand	89%	91%
GSM	91%	92%
GSL 750 V - 30 kV	89%	90%
GSL > 100 kV	57%	77%

Customers participating in LUBD represent 29 different industry types as defined by Statistics Canada and listed in Table 4. The majority of customers fall in the category of “Other Utility Industries” which typically represents water and waste pumping stations. Other major industry types include Amusement/Recreational Services, Agriculture, and Wood industries. These four industries represent 41% of the LUBD customers.

Table 4:

Industry Type	# of Customers
Accommodation	1
Agriculture	8
Amusement and Recreational Services	8
Auto. Vehicles, Parts, Sales & Service	1
Business Services	1
Chemical and Chemical Products	1
Education	3
Electrical and Electronic Products	1
Fabricated Metal Products	4
Furniture and Fixtures	1
Industrial and Heavy Construction	2
Local Government	1
Membership Organizations	2
Metals, Hardware, Plumb, Heat, Wholesale	2
Miscellaneous Government	2
Non-Metallic Mineral Products	1
Other Products, Wholesale	5
Other Service Industries	3
Other Utility Industries	10
Paper and Allied	1
Plastic Products	3

Industry Type	# of Customers
Primary Metals	1
Printing, Publishing & Allied	1
Real Estate Operators	2
Refined Petroleum and Coal Products	1
Storage and Warehousing	5
Transportation	1
Transportation Equipment	2
Wood	7
Total	81

FINANCIAL IMPACTS

For 2013/14, the total savings to customers on the LUBD rate option, compared to the standard General Service rate, was approximately \$290,000 (\$3,600 per customer or \$300 per customer month). Of the 81 customers, 58 benefited during the 12 month period while 23 customers paid more in comparison to the standard General Service rate. These 23 accounts have been referred to their Manitoba Hydro Representative for review. The majority will likely stay on LUBD as the loss for the year was minimal and there is potential for savings in the future given the nature of their usage. Four customers however have switched off LUBD and are now billing under the standard General Service rate, while another service has since been removed.

Table 5 provides a comparison of the revenue billed to LUBD customers versus what they would have been billed had they remained on the standard General Service rate based on the 2013/14 fiscal year. Table 6 provides a distribution of the number and percentage of LUBD customers by average monthly savings (loss) realized through their participation in the LUBD rate offering in 2013/14.

Table 5:

Rate Class	As Billed on LUBD	If Billed as Standard GS	Annual Difference
General Service Small	\$ 372,873	\$ 447,704	\$74,832
General Service Medium	\$ 442,035	\$ 546,103	\$104,068
General Service Large (750 V to 30 kV)	\$ 71,283	\$ 91,696	\$20,412
General Service Large (> 100 kV)	\$ 131,304	\$ 222,108	\$90,804
Total	\$1,017,495	\$1,307,612	\$290,116

Table 6:

Average Monthly Savings (Loss)	No. of LUBD Customers	% of LUBD Customers
Over \$1,501	2	2%
\$1,001 - \$1,500	4	5%
\$501 - \$1,000	10	12%
\$201 - \$500	15	19%
\$101 - \$200	7	9%
\$0 - \$100	21	26%
\$(1) - \$(50)	15	19%
\$(51) - \$(100)	5	6%
Over \$(100)	2	2%
Total	81	100%

CONCLUSION

The LUBD rate was designed to provide an electricity rate option for customers with low billing load factors and it is generally performing as anticipated. The revenue impact to Manitoba Hydro of billing customers under the LUBD instead of the respective General Service Demand rates is modest at approximately \$290,000 for the last fiscal year.