

# **REPORT TO**

## **THE PUBLIC UTILITIES BOARD**

**LIMITED USE OF BILLING DEMAND**

**2015/16**

**May 2016**



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

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### **SUMMARY**

This report on the Limited Use of Billing Demand (“LUBD”) rate option covers the period April 1, 2015 to March 31, 2016. During this period there were 70 customers on the LUBD rate, comprised of 46 General Service Small, 18 General Service Medium, and 6 General Service Large customers.

The LUBD rate option is offered by Manitoba Hydro to address the concerns of General Service customers with very low load factors. If these customers were billed on standard General Service Demand rates, they would be impacted by high demand charges in comparison to their relatively low energy usage which would result in a high cost of energy per kilowatt-hour.

In 2015/16, customers billed on the LUBD rate schedule paid approximately \$314,000 less than what they would have been billed on standard General Service Demand rates for the same time period.

### **BACKGROUND**

In Order 91/00, dated June 30, 2000, the Public Utilities Board of Manitoba (“PUB”) approved Manitoba Hydro’s LUBD rate option, on an interim basis, as a temporary rate offering for a two-year period commencing July 1, 2000. This rate option 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 concerned by the high demand charges they were facing even though they consumed relatively little energy. Under this rate option, customers could opt for a lower demand charge in exchange for a higher energy charge. 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. Customers on LUBD have a

lower contribution to the system peak compared to the overall General Service class, as shown by the comparison of the LUBD coincidence factors in Table 1 below.

**Table 1:**

<b>Rate Class</b>	<b>Summer Coincidence Factor %</b>	<b>Winter Coincidence Factor %</b>
LUBD	35%	32%
GSS Demand	82%	87%
GSM	85%	91%
GSL 750 V - 30 kV	86%	90%
GSL > 100 kV	61%	90%

### **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.

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 70 customers that billed on the LUBD rate in the 2015/16 fiscal year, an overall decrease of 9 customers from the 2014/15 fiscal year.

The majority of customers on LUBD continue to be in the General Service Small Demand rate class. This is shown in Table 2 which provides a summary of the number of customers by rate class that participated in the LUBD rate option in 2015/16:

**Table 2:**

<b>Rate Class</b>	<b>No. of Customers</b>
General Service Small	46
General Service Medium	18
General Service Large (750 V to 30 kV)	3
General Service Large ( > 100 kV)	3
<b>Total</b>	<b>70</b>

Customers participating in LUBD represent 28 different industry types as defined by Statistics Canada and listed in Table 3. The majority of customers fall in the category of Amusement/Recreational Services, Agriculture, and Wood industries. These three industries represent 30% of the LUBD customers.

**Table 3:**

<b>Industry Type</b>	<b># of Customers</b>
Accommodation	1
Agriculture	7
Amusement and Recreational Services	7
Chemical and Chemical Products	1
Crude Petroleum and Natural Gas	1
Education	3
Electrical and Electronic Products	1
Fabricated Metal Products	4
Farm Products, Wholesale	1
Food and Beverage	1
Household Furniture & Appl., Retail	1
Industrial and Heavy Construction	2
Membership Organizations	2
Metals, Hardware, Plumb, Heat, Wholesale	2
Miscellaneous Government	1
Non-Metallic Mineral Products	2
Other Products, Wholesale	5
Other Service Industries	1

Industry Type	# of Customers
Other Utility Industries	5
Paper and Allied	2
Plastic Products	3
Primary Metals	2
Printing, Publishing & Allied	1
Real Estate Operators	1
Refined Petroleum and Coal Products	1
Storage and Warehousing	3
Transportation Equipment	2
Wood	7
<b>Total</b>	<b>70</b>

The billing load factors for LUBD customers are considerably lower than billing load factors associated with typical General Service customers. Based on 2015/16 billing data, the billing load factor for regular General Service customers was 43% for General Service Small Demand, 51% for General Service Medium, 58% for General Service Large 750 V to 30 kV, and 80% for General Service Large > 100 kV.

In the 2015/16 fiscal year, the majority (approximately 89%) of LUBD customers had an annual billing load factor of 20% or less, as shown in Table 4. Customers with a load factor over 20%, or customers not benefiting on LUBD, are referred to their Manitoba Hydro Representative for review.

**Table 4:**

Billing Load Factor	No. of LUBD Customers
0% - 5%	14
6% - 10%	17
11% - 15%	19
16% - 20%	12
over 20%	8
<b>Total</b>	<b>70</b>

### **CUSTOMER BILL IMPACTS**

Manitoba Hydro has designed the LUBD Rate Option to be generally revenue neutral. The Corporation forecasts the number of LUBD customers and the amount of LUBD load in each

Electric Load Forecast and the revenues associated with LUBD customers are forecast in the preparation of the Integrated Financial Forecast. Customers participating in the LUBD rate option are not causing an undue cost burden on other customers as a result.

An analysis of the bill impact to the General Service customers served under the LUBD rate option in 2015/16 indicates that LUBD customers, in total, experienced bills that were approximately \$314,000 less than if they were billed under the comparable General Service rate. The results of this analysis are shown in Table 5 below.

Of the 70 customers, 53 benefited during the 12 month period while 17 customers paid more in comparison to the standard General Service rate. These 17 accounts have been referred to their Manitoba Hydro representative for review. Some of these customers 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. One customer, however, is no longer operating, and another has since requested to be billed under the standard General Service rate.

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 2015/16 energy usage.

**Table 5:**

<b>Rate Class</b>	<b>As Billed on LUBD</b>	<b>If Billed as Standard GS</b>	<b>Annual Difference</b>
General Service Small	\$347,942	\$418,733	\$70,791
General Service Medium	\$519,367	\$634,885	\$115,518
General Service Large (750 V to 30 kV)	\$51,464	\$89,558	\$38,094
General Service Large ( > 100 kV)	\$146,139	\$235,255	\$89,117
<b>Total</b>	<b>\$1,064,912</b>	<b>\$1,378,431</b>	<b>\$313,519</b>

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 2015/16.

**Table 6:**

<b>Average Monthly Savings (Loss)</b>	<b>No. of LUBD Customers</b>	<b>% of LUBD Customers</b>
Over \$1,501	5	7%
\$1,001 - \$1,500	2	3%
\$501 - \$1,000	12	17%

<b>Average Monthly Savings (Loss)</b>	<b>No. of LUBD Customers</b>	<b>% of LUBD Customers</b>
\$201 - \$500	10	14%
\$101 - \$200	10	14%
\$0 - \$100	14	20%
\$(1) - \$(50)	12	17%
\$(51) - \$(100)	1	1%
Over \$(100)	4	6%
<b>Total</b>	<b>70</b>	<b>100%</b>

### **CONCLUSION**

The LUBD rate was designed to provide an electricity rate option for customers with low billing load factors and Manitoba Hydro is of the view that it is generally performing as anticipated.



# **REPORT TO**

# **THE PUBLIC UTILITIES BOARD**

**LIMITED USE OF BILLING DEMAND**

**2014/15**

**January 2016**



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

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### **SUMMARY**

This report on the Limited Use of Billing Demand (“LUBD”) rate option covers the period April 1, 2014 to March 31, 2015. During this period there were 79 customers on the LUBD rate, comprised of 56 General Service Small, 17 General Service Medium, and 6 General Service Large customers.

The LUBD rate option is offered by Manitoba Hydro to address the concerns of low load factor General Service customers. These customers, if billed on standard General Service Demand rates, are impacted by high demand charges in comparison to their relatively low energy usage, which results in a high cost of energy per kilowatt-hour.

In 2014/15, customers billed on the LUBD rate schedule paid approximately \$263,000 less than what they would have been billed on standard General Service Demand rates for the same time period.

### **BACKGROUND**

In Order 91/00, dated June 30, 2000, the Public Utilities Board of Manitoba (“PUB”) approved Manitoba Hydro’s LUBD rate option, on an interim basis, as a temporary rate offering for a two-year period commencing July 1, 2000. This rate option 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 concerned by their high demand charges although they consumed relatively little energy. Under this rate option, customers could opt for a lower demand charge in exchange for a higher energy charge. 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. Customers on LUBD have a lower impact on

the system peak compared to the overall General Service class, as shown by the comparison of the LUBD coincidence factors in Table 1 below.

**Table 1:**

<b>Rate Class</b>	<b>Summer Coincidence Factor %</b>	<b>Winter Coincidence Factor %</b>
LUBD	35%	32%
GSS Demand	82%	87%
GSM	85%	91%
GSL 750 V - 30 kV	86%	90%
GSL > 100 kV	61%	90%

### **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.

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 79 customers that billed on the LUBD rate in the 2014/15 fiscal year, an overall decrease of 2 customers from the 2013/14 fiscal year.

The majority of customers on LUBD continue to be in the General Service Small Demand rate class. This is shown in Table 2 which provides a summary of the number of customers by rate class that participated in the LUBD rate option in 2014/15:

**Table 2:**

<b>Rate Class</b>	<b>No. of Customers</b>
General Service Small	56
General Service Medium	17
General Service Large (750 V to 30 kV)	3
General Service Large ( > 100 kV)	3
<b>Total</b>	<b>79</b>

Customers participating in LUBD represent 28 different industry types as defined by Statistics Canada and listed in Table 3. 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 38% of the LUBD customers.

**Table 3:**

<b>Industry Type</b>	<b># of Customers</b>
Accommodation	1
Agriculture	7
Amusement and Recreational Services	7
Auto. Vehicles, Parts, Sales & Service	1
Business Services	1
Chemical and Chemical Products	1
Crude Petroleum and Natural Gas	1
Education	3
Electrical and Electronic Products	1
Fabricated Metal Products	4
Furniture and Fixtures	3
Industrial and Heavy Construction	2
Membership Organizations	2
Metals, Hardware, Plumb, Heat, Wholesale	2
Miscellaneous Government	2
Non-Metallic Mineral Products	2

Industry Type	# of Customers
Other Products, Wholesale	5
Other Service Industries	2
Other Utility Industries	9
Paper and Allied	2
Plastic Products	3
Primary Metals	1
Printing, Publishing & Allied	1
Real Estate Operators	2
Refined Petroleum and Coal Products	1
Storage and Warehousing	4
Transportation Equipment	2
Wood	7
<b>Total</b>	<b>79</b>

The billing load factors for LUBD customers are considerably lower than billing load factors associated with typical General Service customers. Based on 2014/15 billing data, the billing load factor for regular General Service customers was 44% for GS Small Demand, 52% for GS Medium, 59% for GS Large 750 V to 30 kV, and 79% for GS Large > 100 kV.

In the 2014/15 fiscal year, the majority (approximately 85%) of LUBD customers had an annual billing load factor of 20% or less, as shown in Table 4. Customers with a load factor over 20%, or customers not benefiting on LUBD, are referred to their Manitoba Hydro Representative for review.

**Table 4:**

Billing Load Factor	No. of LUBD Customers
0% - 5%	20
6% - 10%	14
11% - 15%	21
16% - 20%	12
over 20%	12
<b>Total</b>	<b>79</b>

## **CUSTOMER BILL IMPACTS**

Manitoba Hydro has designed the LUBD Rate Option to be generally revenue neutral. The Corporation forecasts the number of LUBD customers and the amount of LUBD load in each Electric Load Forecast and the revenues associated with LUBD customers are forecast in the preparation of the Integrated Financial Forecast. Customers participating in the LUBD rate option are not causing an undue cost burden on other customers as a result.

An analysis of the bill impact to the General Service customers served under the LUBD rate option in 2014/15 indicates that LUBD customers, in total, experienced bills that were approximately \$263,000 less than if they were billed under the comparable General Service rate. The results of this analysis is shown in Table 5 below.

Of the 79 customers, 61 benefited during the 12 month period while 18 customers paid more in comparison to the standard General Service rate. These 18 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. Three customers however have switched off LUBD and are now billing under the standard General Service rate, while another two services are no longer operating.

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 2014/15 fiscal year.

**Table 5:**

<b>Rate Class</b>	<b>As Billed on LUBD</b>	<b>If Billed as Standard GS</b>	<b>Annual Difference</b>
General Service Small	\$352,970	\$428,130	\$75,160
General Service Medium	\$495,610	\$595,203	\$99,593
General Service Large (750 V to 30 kV)	\$96,196	\$91,836	-\$4,360
General Service Large ( > 100 kV)	\$121,682	\$214,510	\$92,828
<b>Total</b>	<b>\$1,066,458</b>	<b>\$1,329,678</b>	<b>\$263,220</b>

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 2014/15.

**Table 6:**

<b>Average Monthly Savings (Loss)</b>	<b>No. of LUBD Customers</b>	<b>% of LUBD Customers</b>
Over \$1,501	2	3%
\$1,001 - \$1,500	3	4%
\$501 - \$1,000	11	14%
\$201 - \$500	11	14%
\$101 - \$200	12	15%
\$0 - \$100	22	28%
\$(1) - \$(50)	14	18%
\$(51) - \$(100)	-	0%
Over \$(100)	4	5%
<b>Total</b>	<b>79</b>	<b>100%</b>

## **CONCLUSION**

The LUBD rate was designed to provide an electricity rate option for customers with low billing load factors and Manitoba Hydro is of the view that it is generally performing as anticipated.