

#4

GREEN ACTION CENTRE

DOCUMENTS

RE RATE REVIEW

661

1 example, we were having the interruption to the -- to
2 the DC system where it caused Manitoba Hydro to do
3 rotating blackouts or load shedding around the
4 province, we would just go into a certain area of the
5 prov -- of the city or the province and we would shut
6 that area down, and we would rotate that outage across
7 all areas of the province. And it would be -- you
8 know, maybe that's a substation, we would -- we would
9 shut that substation down. Everybody would be affected
10 and on a -- you know, on a non-discriminatory basis.
11 And it would -- it would -- I think in -- in choosing
12 the load-shed scheme they've selected the ones that
13 have the least impact to be done first, but -- but that
14 would be under an extreme emergency.

15 Under the curtailable rates program, the
16 maximum duration per interruption is four (4) hours.
17 But we can have back-to-back curtailments, but that
18 uses up the -- the numbers that are allowed under -- on
19 an annual basis.

20 THE CHAIRPERSON: I have a question in
21 relation to the fuel switching report. I guess one (1)
22 -- one (1) of the things I'm struggling with is the --
23 the following. You know, I think all of us respond to
24 price signals, whether it's a consumer or it's the
25 Corporation, and, I guess, I'm -- I'm Manitoba Hydro,

1 I'm looking at the export markets where prices are
2 really low and I can earn seven (7) or eight (8) cents
3 a kilowatt hour from a Manitoba consumer. Why would I
4 encourage the Manitoba consumer to switch to gas? Like
5 -- you know, I'm -- what -- I guess it's a rhetorical
6 question, but I -- not so much.

7 I mean, I'm -- I'm sort of wondering
8 does it -- you know, that sort of calculation go into
9 the level in enthusiasm in -- in supporting consumers
10 in switching to an alternative fuel source? I think
11 it's a question for Mr. Warden.

12 MR. VINCE WARDEN: We're -- with the
13 fuel switching, we're, of course, motivated by what's
14 best for the customer ultimately. And if it's in the
15 customer's interest to -- to use natural gas for
16 heating purposes rather than electricity then we would
17 encourage that, or at least provide the information
18 such that the customer can make that choice.

19 So our motivation is not so much to
20 increase our bottom line; it's more so to -- to provide
21 the source of fuel that's -- that's in the best
22 interests of that customer over the long-term.

23 THE CHAIRPERSON: I guess the -- the --
24 what I'm concern about is the uptake on some of the
25 demand-side management programs that are -- that are --

663

1 that we've seen. I mean, the uptake is not quite what
2 most of us expected. We expected that the people would
3 be uptaking the programs and taking full advantage of -
4 - of what those are offering -- dealing with what's
5 being offered. And I'm concerned that, you know, that
6 the price signal that Manitoba Hydro is getting from
7 the marketplace at -- you know, it's partly
8 attributable to -- it's one (1) of the reasons why
9 we're not getting the level of -- of uptake that we --
10 we would have expected from the dem -- demand-side
11 management.

12 You know, I guess what I'm saying is
13 that there's not much in it for Manitoba Hydro from --
14 from the standpoint of revenue, because you're making
15 most of your revenue from the electricity side, you
16 know, on a relative basis. So I guess I'm -- I'm
17 wondering, is that one (1) of the reasons why --
18 potentially one (1) of the reasons why we're not
19 getting the uptake?

20 MR. VINCE WARDEN: I think the -- the
21 uptake and -- and Ms. Morrison can speak to this
22 certainly, but the uptake would be improved with the
23 appropriate price signals, and that's why previous
24 applications before this Board have been with inverted
25 rates. So we -- we'd like to see the more you use

1 electricity the more you're -- you're going to pay for
2 that.

3 So in -- in our -- in our application,
4 and I think we're going to be talking about this in a
5 subsequent proceeding, is just that: to put more
6 emphasis on the tail-block rate such that we can send
7 that appropriate price signal to customers.

8 There is the issue, of course, in
9 Manitoba with electric heat. And that has -- that has
10 been the -- the reason that inverted rates have not
11 really gone where we would like them to go. And there
12 has to be a solu -- a solution for that and we -- we
13 have been working towards that, which will be part of a
14 future application such that we could have seasonal-
15 type rates, for example, that would -- inverted rates
16 for the part of the year that isn't -- isn't going to
17 affect electric heat customers.

18 As far as the uptake though on the
19 programs, I think that for the most part, with the
20 incentives that have been provided, has been reasonably
21 good, but Ms. Morrison might -- might want to speak a
22 little bit more to that.

23 MS. LOIS MORRISON: I'll be much
24 prepared at the second panel. However, we have had
25 quite a bit of uptake in our programs. We've offered -

PUB/MH II-101**Reference: PUB/MH I-149 Inverted Rates Alternative**

- a) **Please provide an outline of the alternative residential rate strategies that MH is considering with respect to customers whose primary heat source (no access to natural gas) is electrical.**

ANSWER:

Manitoba Hydro reviews potential residential rate strategies from time to time, including inverted rate strategies. Manitoba Hydro's Residential energy rate proposed for implementation April 1, 2013 is 7.2 cents per kW.h which is 85% of the marginal cost value (8.52 cents per kW.h) in the current Power Smart plan and higher than current short run marginal cost.

Other jurisdictions, such as BC Hydro, have recently introduced inclining block rates to replace the single rate schedule for residential customers with the objective of encouraging conservation by reflecting the legacy cost of energy in the first block and the marginal cost of new energy in the second. Price elasticity for electricity in the residential sector is traditionally low therefore requiring a substantial differential to effect a marginal change.

While not under active consideration by Manitoba Hydro at this time, if it were desired to implement inverted rates to the Residential class and to differentiate application of such rates between customers with electric heat and customers with other sources of space heating, the following alternatives may be considered:

- Seasonal differentiation of first block size such that more energy would be billed at a lower rate during the winter heating months
- Differentiating application of Residential rates between electrically heated customers and those with other space heating fuels.
- Special rates for customers where natural gas is not available.

The main goal of any strategy to re-design electricity rates for the Residential class is to balance the competing objectives of sending an appropriate price signal to encourage efficient choices by customers and mitigating impact of future rate increases on specifically electric heat customers. Revenue neutrality, customer acceptability, administrative cost and

burden, gradualism and conformity to Uniform Rate Legislation are other factors to be considered.

1) **Seasonal Differentiation of First Block Size**

This method increases the size of the first block for the winter months (November through April inclusive) and reduces the block size for the summer months (May through October). For example, the summer season inversion could be set at 500 kWh per month while the winter season could be set at 1000 to 1500 kWh per month.

The advantage of a seasonally differentiated first block size is mitigation of impacts on winter bills for those who have no choice but to use electricity to heat their homes. This method does not distinguish between residential customers who are coded as standard (non-electric) or all-electric and so avoids the administrative difficulties inherent in maintaining a separate classification of residential customers based on their heating fuel.

In terms of customer impacts, the winter bill advantage may be offset, at least in part, by higher summer bills. Further, because the larger winter first block shelters a larger portion of residential energy from the second block price, the second block price may have to be higher in order to capture the same revenue as a rate design which is not seasonally differentiated.

From a billing administration perspective, this is the easiest strategy (other than the status quo or a similar approach) to implement and perhaps the easiest for customers to understand. All residential services would be affected with two rate changes a year. Billing issues through a rate change month would, however, be magnified as customers would look more closely at bills and would therefore be more apt to contact the Customer Contact Centre and/or their district office with inquiries. The major complaint would be unfairness of estimated bills and proration.

A more complex variant would be to add one or two additional seasons with first block size set mid way between the winter and summer rate structure; these would apply during the shoulder months of March, April, May, September, October and November.

2) **Different application of Rates for Standard and All-Electric Customers**

This method is similar to 1) above except that only those customers coded on the Billing System as all-electric would be eligible for the seasonal block rate. Standard customers would not have any seasonal differentiation. Expanding on this method, monthly block sizes could be based on monthly heating degree days. For example, the monthly block could rise gradually starting in October with each month increasing until the maximum block size is reached in January/ February, decreasing gradually thereafter.

The major advantage of this method is that it will expose a larger number of customers and kWh to the higher second block price, than the method which does not distinguish between standard and all-electric customers. However, differentiating rates solely upon heating source may encourage customers to make less optimal heating fuel choices.

Should this method be considered, new billing/customer codes would need to be created to more accurately identify electrically heated customers. Identifying customers with electric heat has been done, but it is a manual process and is primarily based upon customers self-declaring their heating fuel choice or where available evidence demonstrates the heating fuel source (e.g. permit information). Variable blocks, based on heating degree days, are likely to lead to considerable customer confusion and increased calls to the Contact Centre and district offices, especially with estimated billings. Varying monthly blocks would also complicate adjusted billings for periods greater than one month.

One important factor to note is that this method may be perceived as not conforming to the principles of uniform rates, even though the separate electric versus standard heating rate classes would apply across the province. Customers would be discriminated against based on the type of heating they chose to use to heat their homes. More seriously, there is also the potential for customers to choose electric heating in order to benefit from the better rate, thereby increasing demand on the system, which in turn will result in higher rate increases to all customers.

3) **Different Rates Based on Fuel Availability.**

Similar to the second method above, this method would apply seasonal blocked rates based on availability of alternate heating fuels. Only those customers who do not have access to gas service would be eligible for a larger seasonal block. Customers

2012/13 & 2013/14 Electric General Rate Application

in areas served by natural gas either would not get a seasonal block charge or would have a lower block kWh amount per month. This method also has the advantage of exposing a larger number of customers and kWh to the higher second block price, particularly during the winter, than the method which does not distinguish between standard and all-electric customers.

Notwithstanding these advantages, this method is judged to be the least appropriate approach to recognizing electric heat requirements. It is administratively difficult to specifically identify areas served and not served by gas, as boundaries and proximity to natural gas are continually changing. Further, the costs associated with conversion to natural gas heating even in areas where natural gas is available can be a significant burden for customers. Alternatively, one could distinguish between existing and new electrically heated homes within areas served by natural gas, although this could add significantly to administrative complexity. This method would also require legislative change, as it would clearly violate existing uniform rates legislation.

PUB/MH II-101

Reference: PUB/MH I-149 Inverted Rates Alternative

- b) **Please explain what the major impediments are to implementing a two-tier rate structure for these electrical customers.**

ANSWER:

Please see Manitoba Hydro's response to PUB/MH II-101(a)

14.0 Rate Design

Mr. Chernick noted that in jurisdictions where TOU rates have been implemented a parallel billing system was utilized, where a customer would, along with the existing bill, receive a bill as if they were on time of use rates. This allowed the customer to gauge the impact the TOU system had on their consumption and billing, and allow them time to make changes in energy use behaviour.

14.13 Board Findings

Inverted Rates

The Board encourages MH to develop plans to employ an inverted rate structure for all customer classes, initially to be designed on a revenue neutral (to MH) basis and to send a “price signal” for every kilowatt hour of energy used, to promote conservation.

MH suggested that too large an inversion would be prejudicial to all-electric customers. However, the nominal inversion of the Residential Rate approved by Order 90/08 can be expected to cost an all-electric customer approximately \$45/year.

In comparison, a natural gas space-heated home, with a conventional furnace, can expect to pay hundreds of dollars more for space heating this upcoming winter as compared to a similarly adequately-insulated, electrically-heated home.

The Board agrees with the principle of inverted rates but notes, based on demand studies presented, that residential customers, in particular, do not significantly change their consumption patterns upon a price increase.

The Board shares the concerns expressed by all parties on the impact that sharply inverted rates would have on both low-income customers and all all-electric heat-load customers, who are unlikely to diminish consumption with

14.0 Rate Design

increases in electricity prices. So, if the inversion were to be sharper, to promote conservation, this could be expected to result in a relatively high proportion of consumption being exposed to the higher second-block rate.

The Board notes that (with respect to the identified problem which electric heat customers could incur with sharply-inverted rates) there are methods to address what could be considered the inequity that could result from such sharply-inverted rates. The Board is aware of the complexities that MH will face in addressing this concern, but it warrants a fulsome analysis.

In particular, the Board is interested in MH providing additional information on seasonal variations in the size of the first electric block for electric heat-load customers. The Board agrees with MH that the size of the first rate block for Manitoba, as compared to the one utilized in Ontario, will likely have to be higher to take into consideration the greater heating load factor due to Manitoba's colder winters. The Board will direct MH to file a plan by January 15, 2009 outlining the pros and cons of the various potential inverted rate strategies under consideration, and the MH-proposed course of action to address this issue.

The Board is quite concerned with the impact that sharply-inverted rates will have on low-income customers. The Board shares the concerns raised by the Coalition that barriers exist that preclude low-income customers from taking actions to reduce electricity consumption. Given that the proposal currently under consideration only reflects a nominal differential between the first and second block, the implementation of inverted rates should not be delayed, and the Board will address the problems of higher energy costs for low-income households in a broader way.

20.12.0 BOARD FINDINGS

The Board notes that MH's responses on the various special rate issues remain outstanding and should receive more timely attention. The Board invites MH to provide all stakeholders (including the Board) with an overall strategy to co-ordinate the changing of rate structures for MH's various customer classes.

The Board requires MH to file preliminary reports (and status updates on):

- Inverted Rates, with a view to creating a significantly higher-priced second energy block, but providing an accommodation to electric heat customers, some of which do not have access to natural gas for heating;
- GSS and GSM Class consolidation with a view to defining the end-product and the specific timeframe for completion;
- Demand/Energy Rate Rebalancing with a view to defining the optimum balance and timeframe to achieve that balance through the allocation of Class Rate increases to the energy component;
- Time-of-Use Rates with a view to applying these in the near future to Top Consumers and industrial customers that already have the necessary metering capability;
- Limited-Use Demand billing with an update of the continued need for this rate in light of the elimination of the Winter Ratchet;
- the Energy Intensive Industry Rate, with justification for either abandoning the rate proposal or providing an alternative on-peak rate scenario as directed in Board Order 112/09; and
- the Service Extension Policy, including a proposal for the Board's review and possible acceptance in accordance with Order 112/09.

PUB/MH I-149**Reference: Appendix 10.2 MH Inverted Rates Plan of Action****Please indicate MH's intentions in the 2012 GRA for pursuing inverted rates in any or all classes.****ANSWER:**

Manitoba Hydro has not advanced a plan to implement inverted rates in the current GRA.

With respect to the Residential class, while Manitoba Hydro had inverted rates from 2008 to 2010, the PUB has made clear that any further proposal for inverted rates in the future should make accommodation for those who may be adversely affected by inverted rates, such as those who do not have a choice in their primary heat source (i.e. lack of access to natural gas service). Manitoba Hydro continues to review this topic but to date has no formal timetable as to an inverted rate structure for residential customers.