

**Manitoba Hydro 2016/17 & 2017/18 General Rate Application
GSS-GSM-MIPUG-1**

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| Section: | | Page No.: | 1-7 |
| Topic: | | | |
| Subtopic: | Time-of-Use rates & DSM | | |
| Issue: | Pre-Filed Testimony of P. Bowman | | |

PREAMBLE TO IR (IF ANY):

At page 1-7, P. Bowman writes:

An optional Time-of-Use rate design should be reviewed for the large industrial classes, based on customers opting in if they see the benefits. To the extent there are lost revenues arising to Hydro from such a program, these amounts are expected to be considerably less than the degree to which industrial customer classes currently pay rates above costs, and therefore can be absorbed within the assigned costs to the industrial classes in the Cost of Service study without requiring increases to other industrial customers.

QUESTION:

- a) Please explain how your DSM recommendations and Time-of-Use recommendations are consistent. If DSM is uneconomic given future surpluses, why would Time-of-Use rates be socially beneficial?
- b) If Time-of-Use is optional, how can adverse selection challenges be avoided?
- c) If optional Time-of-Use rates are adopted, why shouldn't other customer classes be allowed to participate?

RESPONSE:

(a)

The issues with respect to Time of Use rates and DSM are completely different at the present time.

Issues with conservation (DSM) relate to large spending at a time when Hydro claims to be under financial stress, to achieve lower use (and less revenue) at a time when export market prices are low and domestic revenues are beneficial to address financial pressures. In short, in

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large part spending money Hydro doesn't have to achieve an outcome Hydro (and its ratepayers) do not need and do not benefit from, at least for a very long period of time.

With respect to Time of Use, the facts are almost opposite. In the absence of load shifting, a TOU rate is about helping address the fact that the class is facing rates significantly above costs (currently paying 12%-13% above the costs to serve them) so some degree of rate relief is in order (TOU rates would lower this by less than one percentage point), and allowing this benefit to flow to the customers who have demonstrated a relatively lower cost profile within the class (e.g., tend to use more off-peak energy than the class average).

With any degree of possible load shifting, however, benefits may accrue even in the near-term – despite the fact that DSM conservation is of limited value. For example, with the TOU rates as designed in MIPUG/MH I-5a-f Attachment page 10-12, customers would see an increasing ability to use off-peak power under favourable conditions (\$0.0266 cents/kW.h with no demand charges, compared to the reference example of \$0.0323 cents/kW.h with added demand charges). These conditions are expected to be more favourable than the off-peak prices Hydro secures when making export sales. This type of load building could be a net benefit to the system.

At the same time, on-peak prices would have a heightened cost profile, which could lead to some reduction in use, which would free up power for the most valuable export sales.

It is important to compare this to Hydro's conservation DSM programs at the current time, which for example rely on such items as lighting, frequently leading to reduced off-peak sales domestically (and therefore reduced revenue to Hydro) offset by surplus power than would be moved to export markets at the lowest price periods. Also, winter-focused DSM regarding efficiency in such matters as lighting and appliances will often lead to interactive effects, as the "inefficient" energy that is now conserved had previously shown up as heat which is valuable in Manitoba in winter – with this heat now lost, customers will have to either consume added natural gas, or in areas without natural gas, replace the "conserved" energy 1:1 with electric heating load (this condition, known as "interactive effects" is one of the more ignored and problematic aspects of Hydro's DSM initiatives related to indoor devices).

(b)

Adverse selection in this context is understood to mean customers individually selecting the rate offering that works best for their individual situation. In this regard, adverse selection does not need to be avoided – it is in fact central to the idea of offering multiple rate schedules to eligible customers.

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Optional rate designs are common in the utility industry and customers will select the rate offering that best meets their load profile. As long as the rate designs are thoughtfully constructed, and the class as a whole is recovering its costs via a properly measured Cost of Service study, there are no adverse effects on other classes from the choices made by industrials (though there can be beneficial effects on other customers arising from such matters as, as noted above, off-peak load building).

In fact, there are already limited examples of this happening within Manitoba, with the Limited Use of Billing Demand (LUBD) rate schedule. Any GS customer can sign up for the LUBD rate schedule as opposed to the normal rate schedule, whichever suits their load profile the best. LUBD revenue is understood to be recorded in the appropriate underlying rate class for Cost of Service purposes (e.g., GSL 0-30kV LUBD is part of GSL 0-30kV) and the fact that LUBD pays less for their load shape than they would have under the standard GS offering is of no adverse effect to any customer or class, despite this “adverse selection” occurring as cited.

(c)

Please see PUB/MIPUG-6(c). There is no reason other customer classes cannot participate in a properly developed time of use rate for their class.