

# Affordability Implications of Manitoba Hydro's General Rate Application

**Presentation to the  
Manitoba Public Utilities Board**

**Philip Raphals**  
for the Assembly of Manitoba Chiefs

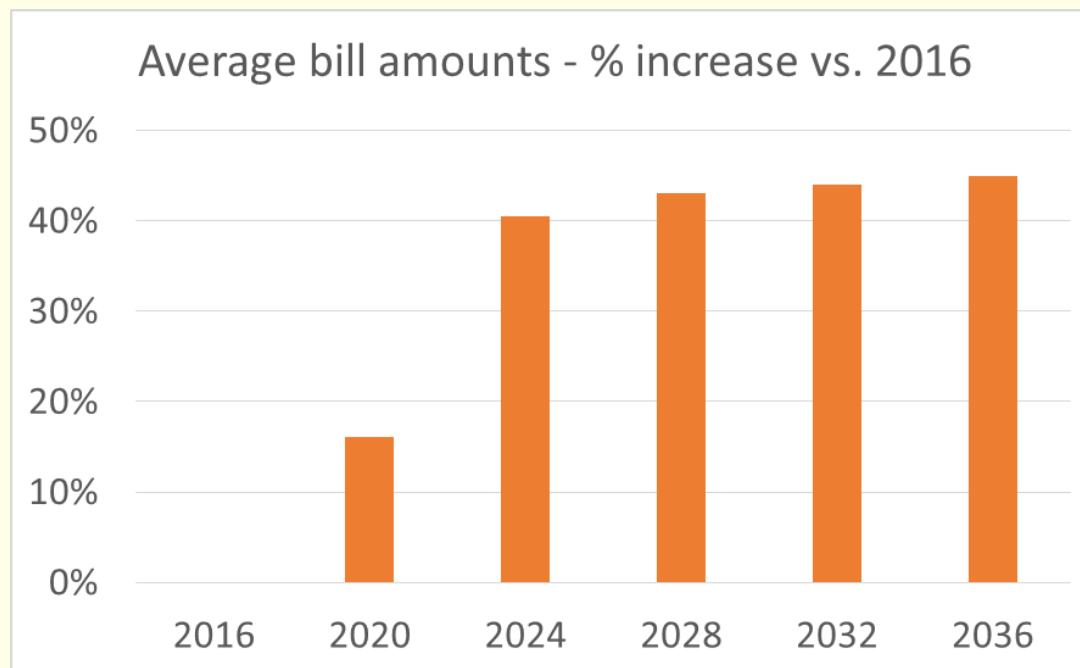
**January 25, 2018**

## Plan

- Impacts on energy poverty
- Affordability mitigation mechanisms
- Who should bear the costs?
- Energy poverty on First Nations reserves
- Concerns, trade-offs and potential solutions
- Recommendations

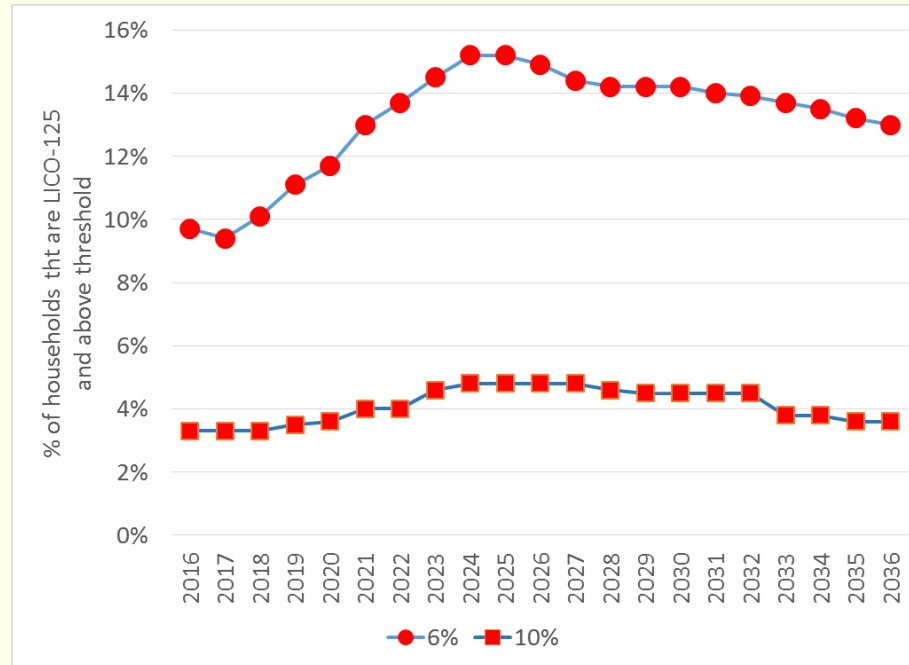
## Impacts on energy poverty

- Under current rate proposal, average bills to increase 40% by 2024



Source: AMC/MH II-23a-c, page 4

## Impact of rate increases on % of households in energy poverty (Scenario 4)

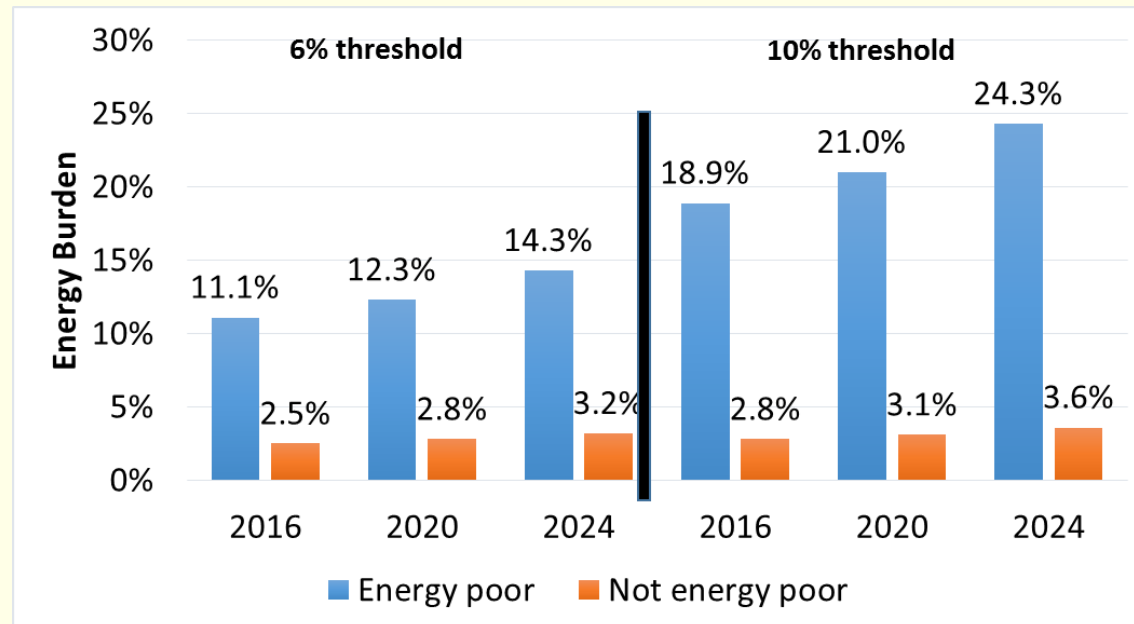


Source: AMC/MH II-23-a-c, Figs. 7 and 8; MH-98

- The 16% of Manitoba households projected to be both LICO-125 and energy poor (6% threshold) in 2024 represent:
  - > 60.5% of LICO-125 households (MH-98, Fig. 2)
  - > 74,725 households (MH-98, Fig. 3)

## Impact on energy burdens

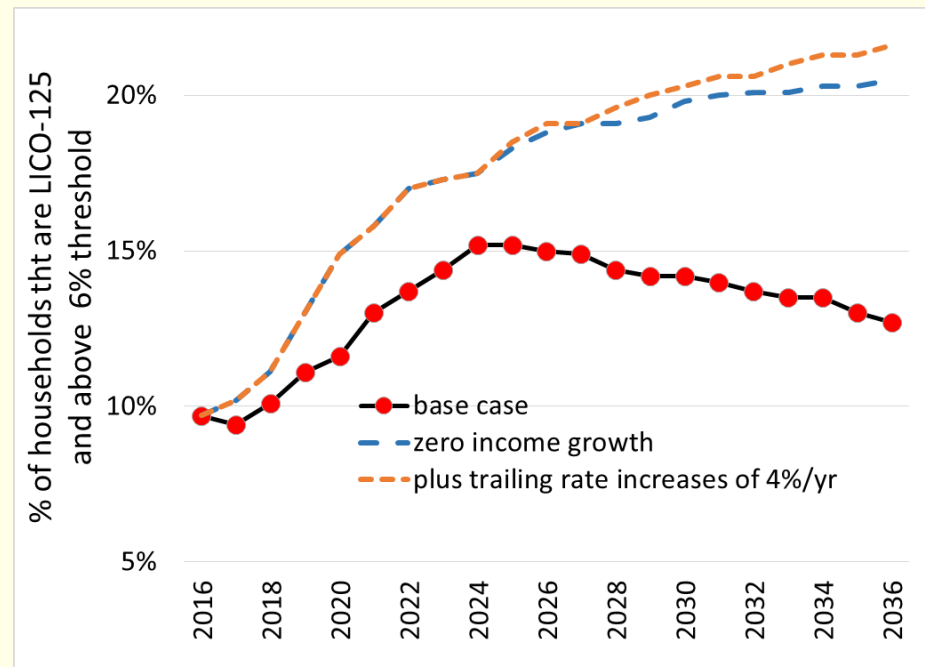
- Impact of rate increases on energy burdens substantially greater for energy-poor
  - > 6% threshold: increases to 14.3% in 2024
  - > 10% threshold: increases to 24.3% in 2024



Source: AMC/MH II-23-a-c, Figs. 9 and 10

# Assumptions behind these projections are not conservative

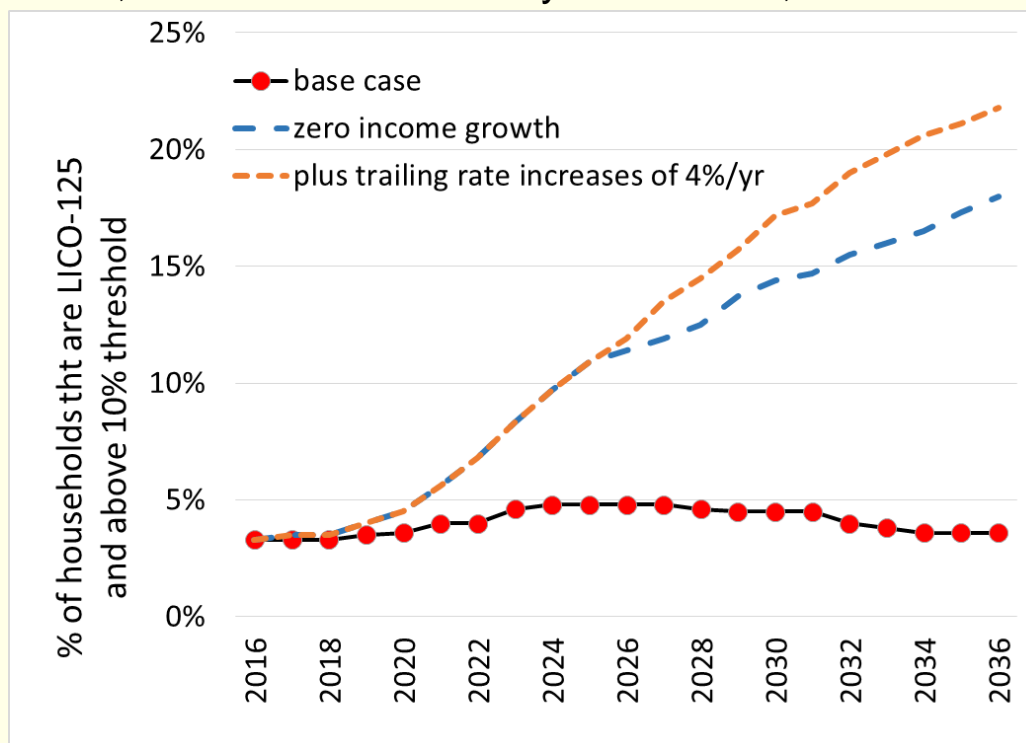
- Base case: % of households above 6% threshold peaks at 15.2% in 2024; declines thereafter
  - > Assumes that incomes grow at 3%/year; rate increases of 2%/yr after 2024
  - > If incomes static for energy-poor households, number above 6% threshold increases to 20.5% in 2036
  - > If, in addition, rate increases of 4%/yr after 2026, increases to 21.6% in 2036



Source: AMC/MH II-28, Tables 1 and 2; MH-98

## ... Assumptions not conservative

- Base case: % of households above 10% threshold peaks at 4.8% in 2024; declines thereafter
  - > If incomes static for energy-poor households, number above 10% threshold increases to 18% in 2036
  - > If, in addition, rate increases of 4%/yr after 2026, increases to 21.8% in 2036



Source: AMC/MH II-28, Tables 1 and 2; MH-98

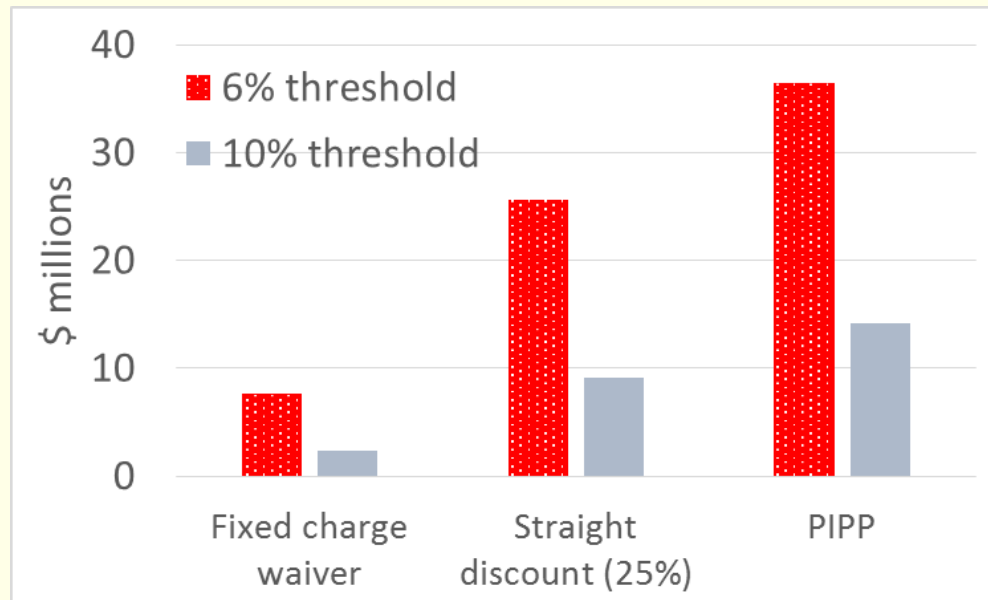
## Affordability mitigation mechanisms

- Affordability working group (PRA Report) analyzed impacts of three mechanisms
  - > Straight discount of 25%
  - > Fixed charge waiver
  - > PIPP
- Impacts on bills and on energy poverty evaluated for each
  - > Three rate scenarios in filed report
  - > Fourth scenario reflecting current rate proposal provided in response to IRs from AMC
  - > Following slides use only Scenario 4 (MH current rate proposal)



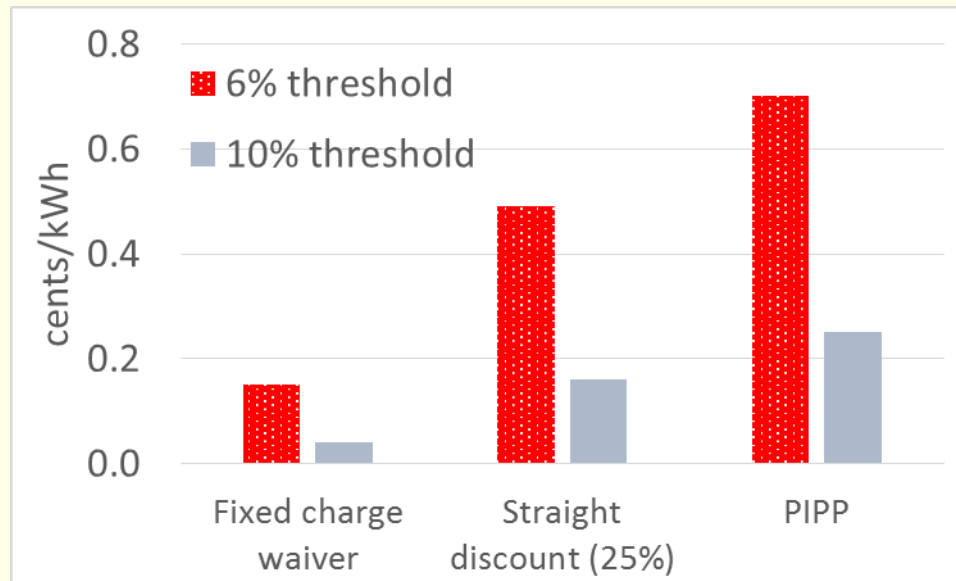
## Revenue losses

- With a 10% threshold, PRA estimates that revenue losses would range from \$2.3 to \$14.1 million
- With a 6% threshold, revenue losses would range from \$7.6 to \$36.4 million



## Rate impacts

- Assuming that program costs and revenue losses supported by residential customers only, PRA estimates rate impacts
  - > with a 10% threshold, ranging from 0.04 to 0.25¢/kWh
  - > with a 6% threshold, ranging from 0.15 to 0.70¢/kWh



- > Amounts substantially lower if shared among all other customers

## Chernick proposal

- Discount inframarginal first block
  - > Proposed price: 4.556¢/kWh (4¢ discount)
- Low income rate
  - > 500 kWh first block, year-round
- Electric Space Heating (ESH) rate
  - > 150 kWh in spring
  - > 250 kWh in fall
  - > 500 kWh in winter
- First block allocations for low income and ESH rates are additive

## ... Chernick

**Table 6: Summary of Rate Proposals**

	MH proposed	LICO-125	ESH	LICO-125 ESH	Non-LICO Non-ESH
Basic Charge	\$8.44	\$0	\$8.44	\$0	\$7.82
First Block	8.556¢	4.556¢	4.556¢	4.556¢	7.93¢
Remainder	8.556¢	8.556¢	8.556¢	8.556¢	8.909¢
First Block kWh					
Summer	—	500	—	500	500
Spring	—	500	150	650	500
Fall	—	500	250	750	500
Winter	—	500	500	1,000	500
Recovery rate		0.22¢	0.12¢		

Recovery rate assumes recovery from all other customers

## ... Chernick

- Significant improvement over measures studied by affordability working group
  - > No effect on price signal for most customers
    - Unlike straight discount, PIPP
  - > Significant bill reduction
    - Unlike fixed charge waiver
- Block sizes can be adjusted based on assessment of need and of rate impacts

# Who should bear the costs of an affordability mechanism?

- Ratepayer vs taxpayer
  - > Strong arguments in favour of govt support for affordability programs
    - Progressive taxation system
    - Societal benefits
  - > But the GRA is not the appropriate forum to address
  - > Board's decisions made in the context of existing government policy
- Also strong arguments for ratepayer support
  - > Reasonable levels of cross-subsidization are common in many aspects of utility regulation
  - > No other options in absence of government action
  - > GRA appropriate forum to address
- Intra- or inter-class subsidization?

## Allocating costs of an affordability mechanism

- Who benefits from the investments driving the rate increases?
  - > Rate increases driving affordability crisis driven by export-related capital costs
  - > All customer classes benefit from export revenues
  - > So all customer classes should contribute to affordability relief
- COSS methodology set by Order 164/16
  - > If the COSS methodology is driven by considerations other than cost causation, then the final results of the COSS are muddled. Subsidies within the COSS are challenging to disentangle at the ratemaking stage. The Board is of the view that additional transparency is achieved with the COSS and the ratemaking process if these implicit or explicit subsidies are eliminated from the COSS. (page 38)
- PCOSS18 to be approved in this proceeding
  - > Based on principles set out in Order 164/16
  - > Modifications possible in conformity filing
- Board free to diverge from COSS in setting rates
  - > Many factors to consider, including equity and fairness

## ...Allocating costs of an affordability mechanism

- Order 164/16 seems to leave open possibility of reassigning costs at ratemaking stage
- Should affordability costs be associated directly with export revenues?
  - > MH considers it more « pragmatic » to reduce residential RCC in an « expanded zone of reasonableness » (Rebuttal, p. 65)
  - > Implies that lost revenues and administrative costs would be shared with other rate classes
- Other possible approaches:
  - > Allocate a portion of the lost revenues to each class, or
  - > Treat lost revenues as an export-related cost and deduct from gross export revenues
    - Like Affordable Energy Fund (AEF)
    - Would result in allocating to classes based on share of Generation and Transmission costs
- Key issue: Board judgment re who should bear the costs
  - > Choice of most appropriate accounting treatment is secondary



## Energy poverty on First Nations reserves

- Clear evidence suggesting that energy poverty is a major problem on reserves
  - > 96% below poverty line (2016 Census)
  - > Median annual income of \$11,915 (2016 Census)
  - > 44.2% live in dwellings needing major repair (Statistics Canada)
  - > Based on REUS data:
    - Average electricity consumption 23 to 29% higher than for all ESH customers
    - Average electricity consumption per unit dwelling area 24% to 47% higher than for all ESH customers
    - But REUS had insufficient sampling on reserve

## Electricity consumption on reserve

### ■ Based on billing data

- > A) On-Reserve First Nation ESH customers average bill 29.4% higher than average residential ESH customer
  - 31,317 kWh/yr vs 24,194 kWh/yr  
(source: AMC/MH II-1, p. 3; COALITION/MH I-30b, p. 5)
- > B) Consumption for on-reserve single detached ESH home 13.1% higher than for off-reserve single detached ESH home
  - 31,981 kWh/yr vs. 28,267 kWh/yr  
(source: MH-108, Undertaking #32)
- > If data reliable, suggests that
  - roughly half of the difference observed in A) is due to housing types, and
  - the remainder probably attributable to climate and housing stock quality

### ■ « On-reserve non-ESH » category misleading

- > Average consumption just 3% lower than « ESH »  
(AMC/MH II-1, page 3)
- > % of bills > 4,000 kWh also almost identical to ESH
- reasonable to assume that virtually all on-reserve are ESH

## Senate report

### ■ On-Reserve Housing and Infrastructure: Recommendations for Change (2016)

- > “As the committee outlined in its interim report on housing, there is widespread agreement that the funding amounts provided by both AANDC and CMHC are insufficient to properly maintain, operate, and build housing on reserve.”  
(p. 17)

## Senate Interim Report

### ■ HOUSING ON FIRST NATION RESERVES: Challenges and Successes (2015)

- > “The Committee has heard that housing on reserves deteriorates more quickly than housing off-reserve for a number of reasons, including the use of poor quality building materials, lack of information among residents about how to maintain the housing, overcrowding, and insufficient funds to address maintenance problems.” (p. 20)
  
- > “First Nations leaders across the country want to address the maintenance needs of homes in their communities, but many are constrained from doing so by their financial capacity. While they are pressured by residents to complete much-needed repairs, the costs related to ongoing maintenance of housing can be significant. For example, Roxanne Harper of Turtle Island Associates told the Committee that: “[w]hat First Nations very quickly began to struggle with wasn’t the construction cost; it was the actual cost of managing the asset, making sure the home was insured, making sure the home was repaired, maintained and kept at a minimum standard.” Despite these ongoing needs, the Committee has consistently heard that there is simply not enough money to properly maintain the housing. Similarly, a 2011 report of the Auditor General found that federal funding has not kept pace with the need for renovations of existing units.” (p. 21) (underlining added)

## Concerns, tradeoffs, potential solutions

- Important to limit the affordability rate to those who need it most
    - > Energy poverty may climb to 20% or more of households
    - > LICO-125 not an ideal measure
      - Ignores high cost of food in remote communities
      - Ignores high heating costs in North
      - Needed: definitions of poverty and of energy poverty that:
        - Reflect Manitoba realities (« made-in-Manitoba »)
        - Facilitate administration
    - > Non-ESH customers unlikely to need a subsidized electric rate to counter energy poverty
      - If energy poor, need help with their heating costs
- ⇒ restrict affordability rate to energy-poor ESH customers

## ... Concerns, tradeoffs, potential solutions

- Eligibility criteria/inscription methods
  - > Tradeoff between administrative difficulty and accuracy
  - > Risk of excluding eligible customers (participation rate always < 100%)
  - > Risk of including ineligible customers
- Additional costs also borne by those who don't apply for or qualify for subsidized rate
  - > Even if low income
  - > Potential solution: third category that is protected from additional costs (neither subsidized nor subsidizing)
    - Eligibility: low-income, broadly defined
- One-size-fits-all discount doesn't reflect real heating costs
  - > Vary block size based on climatic data (e.g. historical average of degree-days)?
    - Compatible with legislation?

## Affordability mechanisms – the way forward?

- What **not** to do
  - > Ask MH to carry out further studies, report back in next GRA
  - > Order immediate implementation of a specific affordability mechanism
- Instead, Order that:
  - > MH present a ready-to-implement affordability rate in a conformity filing by a date certain, for implementation in rate year 2019-2020
  - > MH convene a working group with expert support to assist it in developing a detailed plan, including:
    - Target public
    - Eligibility criteria and administrative mechanisms to apply them
    - Modifications to other rates to recover lost revenues
  - > Conformity filing to be reviewed in public hearing

## Recommendations

- Target public
  - > Help all those in need
  - > But minimize rate impacts to others
  - > **Limit coverage at this time to energy-poor customers with electric space heat**
- Eligibility criteria
  - > **First Nation residences on reserve:** *a priori* eligibility for those who pay their own energy bills probably justified
  - > **Other energy-poor households:** developing eligibility criteria and administrative policies will be the primary challenge for Manitoba Hydro and for the working group
    - Strict, to avoid over-inclusion
    - But easy to apply, to encourage participation
    - And easily verifiable, to minimize administrative cost



## ... Recommendations

- Rate adjustments to allow MH to recover administrative costs and lost revenues
  - > ***share cost among all rate classes***
  - > ***ensure that rate designs include effective price signals***  
(Chernick)