

**Energy Poverty in Manitoba and the Impact of the Proposed
Hydro Rate Increase: An Assessment of the Bill Affordability
Study in the Manitoba Hydro GRA**

**Manitoba Hydro
2017/18 & 2018/19 GRA**

**Consumers Coalition
Submitted by the Public Interest Law Centre
Authored by Dr. Wayne Simpson**

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1. Introduction

Manitoba Hydro proposed rate increases of 7.9% for 2017-18 and 2018-19 in its latest General Rate Application dated May 5, 2017. These requested increases formed part of a financial plan involving rate increases of 7.9% for five years from 2017-18 to 2021-22 “in order to achieve an adequate income and cash flow level to mitigate risks during a period of significant financing and capital investment” (Tab 2, p.52). The Public Utilities Board has since ordered a 3.36% interim rate increase for 2017-18, effective August 1 2017 (PUB Order 80/17), and Manitoba Hydro is now seeking rate increases of 7.9% for six years from 2018-19 to 2023-24 followed by an increase of 4.54% in 2024-25. Since consumer price inflation is expected to amount to only about 1.9% per annum during this period (Appendix 3.2, p.10), the proposed rate increases would exceed general inflation by 6% per year through 2021-22 or 33.8% over the five year period of the original proposal. Under the new proposal, rates would increase by 6% through 2023-24 followed by an increase of 4.54% in 2024-25, a 48.3% increase over the seven year period. While this may impose hardship for a wide spectrum of consumers, those with low incomes in relation to their energy needs would be expected to be particularly hard hit.

Public Utilities Board Order 73/15 of July 24, 2015 directed Manitoba Hydro to “lead a collaborative process to develop a bill affordability program harmonized with Manitoba Hydro’s other programs supporting low-income ratepayers” (p.96). In response to this Order, Manitoba Hydro convened a Bill Affordability Working Group with Manitoba Hydro representatives and interested stakeholders. The Working Group commissioned research and issued a Summary Report and Recommendations in January, 2017 (Appendix 10.5), hereafter referred to as the Report, and all subsequent page references are to this Report unless otherwise indicated. The Report lists the Working Group’s objectives (pp.12-13) as including: (1) creation of a “made-in-Manitoba definition of energy poverty” to study its nature and impact in Manitoba, (2) assessment of existing programs aimed at energy affordability for low-income citizens, (3) analysis of Manitoba Hydro customer arrears (unpaid bills), (4) analysis of the impact of

projected rate increases on low-income customers, and (5) provision of recommendations for new or improved programming to address energy poverty.

The Public Utilities Board Order followed the PUB Report of June, 2014 on the Needs for and Alternatives to (NFAT) Review of Manitoba Hydro's Preferred Development Plan. While the NFAT report contemplated much smaller rate increases over a longer time horizon, it recognized that "a doubling of rates will have a significant effect on all ratepayers" and expressed particular concern about rate increases on customers dependent on electricity for heating, lower income consumers and First Nations communities (p.29). Concerning the impact on low income and vulnerable consumers of the preferred and alternative development plans for Manitoba Hydro, the NFAT report (p.185) cited a report that I prepared in conjunction with Harvey Stevens on behalf of the Consumers Association of Canada (Manitoba) through the Public Interest Law Centre. The Stevens and Simpson (2014) report analyzed evidence on the impact of electricity price increases on both low-income and non-low-income households in Manitoba from the Statistics Canada Survey of Household Spending microdata files between 2000 and 2009. The Stevens-Simpson report addresses some of the same issues as the Report of the Affordability Working Group and will provide background to this assessment. Discussion or analysis of bill affordability or energy poverty prior to the NFAT will not be considered here.

2. Definition of the Energy Poverty Population

Energy poverty must be viewed in the context of consumer demand, where the consumer is typically a household or family. The consumer decides how to allocate income among available goods and services with or without saving or borrowing. Some of those goods and services are considered to be necessities whose portion of all consumption is higher for low-income consumers. This is the basis for Statistics Canada's Low Income Cutoff (LICO), which defines low-income households as those who consume more than a specified portion of their income on necessities (food, shelter and clothing). Energy, as part of shelter, is one of these necessities that takes up a larger portion of the budget of lower-income households, as found for Manitoba households in Stevens and Simpson (2014, Table 1, p.7). Households that are poor are also energy poor in the sense that their energy expenditure is large relative to income, and they

are therefore particularly vulnerable to energy price increases of the magnitude requested by Manitoba Hydro.

From this perspective, the simple ratio of income approach (SRIA), which is based on the energy (electricity and natural gas) expenditure share or portion of consumer income spent on energy, is the sensible starting point (p.15). As a “made-in-Manitoba” definition of energy poverty, however, the Report immediately stumbles. The Report adopts a definition of poverty based on two criteria—a threshold expenditure share of 10% or 6% and a level of household income that is 125% of the LICO for communities with more than 500,000 inhabitants—that are drawn from the broad literature outside Manitoba without any apparent reference to the Manitoba data or situation. It would not have been difficult to examine the energy expenditure share across household incomes (with or without adjustment for family size based on the LICO) to see what income and expenditure share thresholds would be appropriate to defining energy poverty for Manitobans. That is, as household income declines, there would come a point at which the energy expenditure share would be expected to begin to rise sharply for a significant proportion of Manitoba families, but would it be at an income corresponding to 125% of the LICO and would it surpass a 6% or a 10% energy expenditure threshold? Or, given the unique characteristics of a northern prairie climate, would the level of income where the energy share began to rise and surpass some energy share threshold for significant numbers of Manitoba families be characterized by some other parameters that would reflect a truly “made in Manitoba” definition of energy poverty? Manitoba Hydro’s response to Coalition/MH II-44 provides us with some visual evidence, reproduced as Appendix A at the end of this paper, that shows the expected pattern of a substantial rise in the hydro expenditure share as household income declines (around \$50,000), but more statistical analysis with the raw data would clearly be needed to develop criteria for the definition of energy poverty among Manitoba Hydro customers.

The Report identifies 142,000 or 30% of Manitoba Hydro customers who have incomes less than 125% of the LICO for large communities. This is a significant proportion of the customer base, but it is somewhat of an overstatement of the low-income customer base because it is based on a LICO that would overstate the cutoff income for both large and small communities. For communities with fewer than 500,000 (everyone outside Winnipeg) the actual LICO would be smaller than the LICO for large communities over 500,000 as shown in Table 1

from Statistics Canada at the end of this document. For Winnipeg itself, the LICO reflects an average cost of living for large Canadian cities that includes Vancouver and Toronto and is much higher (especially when it comes to housing cost) than Winnipeg. In other words, a “made in Manitoba” estimate of low-income households that reflected community size and cost of living, such as the Market Basket Measure developed by the Government of Canada,¹ would produce a smaller low-income customer base.

Based on the 2014 Residential Energy Use Survey (REUS), the Report indicates that 14% of all Hydro customers spend more than 6% of income on energy and 4.2% spend more than 10%. The Report also finds, as expected, that these thresholds are crossed primarily by lower-income households. It finds that 13.5% of customers with incomes less than 125% of the LICO (about 19,200 Manitoba households) spend more than 10% of income on energy, while the corresponding figure for higher-income households is only 0.2% or negligible. For the 6% threshold, the corresponding figures are 41% for lower-income households (about 58,300 Manitoba households) and again a reasonably insignificant figure of 2.6% for the higher-income customers (p.69). These results provide clear evidence that household income is an important factor in energy poverty, as would be expected. It would have been very useful to see these figures broken down by community size (such as the breakdown of community sizes in Table 1 below), particularly since there are numerous references to the high incidence of energy poverty in small First Nations communities (pp. 7, 13, 16-17, 47-48, 55, 70-73, 86-89).

3. The Impact on Energy Poverty of Proposed Rate Increases

The Report provides simulation results that estimate the impact of proposed electricity rate increases on energy poverty, based on a telephone survey of Manitoba Hydro customers that was linked to Hydro’s administrative records (p.55-56). The simulations show that the impact is significant, particularly if the increases are larger and occur over a shorter period, as is now proposed by Manitoba Hydro. In essence, the simulation exercise assumes that price levels and household incomes will rise at the average annual rates experienced in Manitoba from 2009 to

¹ <http://www.statcan.gc.ca/pub/75f0002m/2013002/mbm-mpc-eng.htm> The MBM measure of a basic standard of living for a reference family of four differs by community size and province but is considerably lower for Winnipeg than for Toronto, Vancouver and other major Canadian cities: <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2060093>

2015 (1.78% and 2.96%, respectively) except for electricity prices, which will increase at 3.95% for 12 years or 5.95% for 6 years or 7.95% for 4 years (pp.89-90). (There are also some minor adjustments to natural gas prices to reflect the expected introduction of the carbon tax.)

All three scenarios for electricity price increases considered in the original Report result in substantial growth in energy poverty over the next decade regardless of which threshold (6% or 10%) is adopted, but the incidence of energy poverty grows much more rapidly for the higher immediate rate schedule of 7.9% now proposed by Manitoba Hydro. The proportion of LICO-125 households with energy expenditures exceeding 6% of income rises from 9.7% in 2016 to 11.1% in 2020 when rates are raised by 3.95%, to 11.9% when rates are raised by 5.95%, and to 13.2% when rates are raised by the proposed 7.95% over this four year period (p.91). In other words, energy poverty rises by 36% (from 9.7% to 13.2%) over a very short time frame of four years when rates are raised by the proposed 7.95% for four years. While energy poverty rates eventually converge to the same rate (11.9%) in all three scenarios, that convergence does not occur until 2029. In the interim, energy poverty is a growing problem under all rate increase scenarios but a significantly greater problem when rates are increased at 7.95% for the first four years. Similar conclusions can be drawn from the 10% threshold (p.92).

Manitoba Hydro's response to AMC/MH II-23 provides a fourth scenario that reflects the current 3.36% interim rate increase following by the current proposal for 7.9% rate increases for six years and a 4.54% rate increase for the seventh year. The differential impact of this scenario on energy poverty is quite dramatic. The proportion of LICO-125 households with energy expenditures exceeding 6% of income now continues to rise from 9.7% in 2016 to 13.0% in 2021 and to 15.2% in 2024 (AMC/MH II-23, Figure 7), far above the earlier scenarios including the four-year 7.95% one. In other words, energy poverty not only rises by 34% (from 9.7% to 13.0%) over the next four years but continues to rise by a total amount of 57% within seven years. And, while energy poverty rates eventually converge in 2029 for the other three scenarios, this convergence no longer occurs in the fourth scenario as the energy poverty rate is still 14.2% in 2029, an increase of 46% over 2016, and is still 13.0% by 2036. In other words, energy poverty not only grows for a longer period, as the proposed extension of substantial rate increases for three more years would suggest would happen, but assumes for all intents and purposes a permanently higher level than the current experience. Again, a similar conclusion can be drawn from the 10% threshold (AMC/MH II-23, Figure 8).

These results may again overstate the case, particularly since no behavioural response to higher electricity prices is assumed (pp.57-58). The assumption that energy consumers do not alter their energy use when confronted with dramatic increases in the price of electricity, as much as 6% above inflation in the case of a 7.9% rate hike, flies in the face of considerable evidence that the demand for electricity is sensitive to price like other normal goods. Indeed, a number of papers are cited in the Report (p.57) to support the idea that consumers will reduce their energy consumption,² but two points should be noted. First, the evidence is that energy is price inelastic, so that energy use will fall but by a smaller amount than prices rise so that energy consumption as a portion of income will rise. Second, the evidence cited also indicates that adjustment of energy use will take time, so that consumers will be less responsive over a short run that may be several years. Thus, the assumption of no behavioural response may not be far from the mark at first and the implied impact on energy poverty may not be drastically overstated in the early years, but longer run adjustments may allow some consumers to avoid the energy poverty trap, albeit perhaps by making very difficult and uncomfortable energy consumption choices. This may be where policies to assist low-income Manitoba Hydro customers to become more energy efficient can be most effective, as consumers facing dramatic rate increases and energy poverty are motivated to adopt measures to reduce energy usage.

It should be noted that a related exercise in Stevens and Simpson (2014) produced similar conclusions. Based on the data for Manitoba from the Surveys of Household Spending, their analysis also found that an increase in hydro rates would increase the share of spending on electricity for low-income households. The increased spending on electricity would occur at the expense of spending on food, shelter, transportation, and education. While the effects in their analysis were modest, they were based on scenarios involving much more modest real rate increases of 2% proposed during the NFAT, rather than the 6% real increases now proposed.

4. Policies to Combat Energy Poverty

The Report provides extensive discussion of policies to address bill affordability, some of which are already available to Manitoba Hydro customers. Broadly speaking, the potential policies to deal with bill affordability and energy poverty can be divided into two types: (1) rate

² The impact analysis of Compton and Simpson (2017) for the current Hydro GRA hearings incorporates this behavioural response.

assistance and (2) energy efficiency. The Report also lists its evaluative or design principles as accuracy, financial sustainability, transparency, equity, evaluability and participatory. While I would agree with these principles, I would add efficiency considerations, associated with full marginal cost pricing and delivery of services (affordable energy in this case) at least cost. I will elaborate this point in my discussion below.

4.1 Rate Assistance Programs

Rate assistance programs aim to provide direct relief to customers who have limited ability to pay, which is overwhelmingly customers in the energy poverty group although, as the Report outlines, not all households with incomes below the LICO-125 threshold have energy expenditure shares that exceed 6% or are in arrears. Although Manitoba Hydro provides programs that assist households in budgeting, the Equal Payment and Deferred Payment Plans, these are not directed at those who are energy poor and do not provide rate relief. The Neighbours Helping Neighbours program, on the other hand, does provide emergency relief through community agencies and private donations to select low-income customers facing a crisis or hardship, but the scope is limited and directed toward one-time assistance to address temporary emergencies (p.45). Indeed, only 19% of the energy poor are even aware of the program (p.103).

More general rate assistance programs are discussed in the Report. All jurisdictions in the Report's survey offer emergency assistance, but this will be of limited benefit at best to those faced with sustained electricity rate increases over a five-year period. The only Canadian jurisdiction to offer extended rate assistance is Ontario. The Ontario Electricity Support Program provides a monthly fixed credit for electricity consumption to households based on their size and income, with additional credits for First Nations, Metis and electrically heated households and households with individuals who rely on certain medical devices (pp.108, 176). The program was originally funded by higher rates of about \$1 per month to other Ontario ratepayers, but the Fair Hydro Plan introduced July 1, 2017 will provide additional rate relief (an average of 25%) across the board and shift the burden of rate relief and the OESP from ratepayers to general revenues and all taxpayers.³

3 <https://news.ontario.ca/opo/en/2017/03/ontario-cutting-electricity-bills-by-25-per-cent.html>

The Ontario program follows rate assistance programs in Colorado and Pennsylvania. The initiative of the Public Service Company (PSCO) of Colorado is particularly interesting, since it combines rate assistance with arrearage forgiveness and weatherization aids and requires recipients to enroll in the Low Income Home Energy Assistance Program and the budget billing program (p.108). This effectively identifies the energy poor and coordinates the set of program directed at these low income households.

There are now quite a large variety of rate assistance programs in the U.S. and Ontario, as the Report summarizes in Table 22 (pp.109-112). Many of these rate assistance programs are directly related to usage, such as the California Alternate Rates for Energy, Seattle City Light, PECO Energy Company Customer Assistance and Iowa Affordable Heating Payment programs. These programs have the advantage of directly assisting those with energy poverty but at the expense of limiting the incentive to conserve energy and adopt energy efficient practices. From this standpoint, preferred (efficient) rate assistance programs would be those that provide assistance to low-income energy poor households that is not directly tied to the level of energy consumption.

The Report seems to recognize the importance of all Hydro customers contributing something to the cost of their energy consumption as an evaluative principle (p.31). Economic efficiency considerations go further, however, in arguing that customers should contribute the full marginal cost of their energy consumption in order to enhance social welfare. Affordability considerations should be addressed by transfers that are independent of the price customers pay for the service.

This efficiency consideration is likely an important justification for the fixed credit approaches taken by Colorado and Ontario. Colorado provides a fixed credit to low-income households to bring past total energy consumption to the 6% threshold. Since the credit is based on past, rather than current, consumption, it both targets the energy poor directly and encourages some energy conservation. The Ontario Electricity Support Program provides a similar fixed credit, but it is based directly on household size and income to support poor households while maintaining incentives to conserve energy. While the Colorado program directly addresses those experiencing energy poverty, rather than simply low-income households, both the Colorado and

Ontario programs provide assistance that is directed to those who would be most seriously disadvantaged by the sizeable rate increases proposed by Manitoba Hydro.

The Ontario experience raises the question of how assistance to low-income households or the energy poor should be financed. It is evident in the Manitoba Hydro GRA that it is reluctant to finance any new and possibly expensive affordability program at the expense of other ratepayers or its own revenues and that such programs require new funding. The Ontario experience suggests that ratepayer concerns might be eased if the program were financed from government revenues. In this regard, the report (p.40) echoes an earlier proposal from the NFAT report (p.252) “that the Government of Manitoba direct a portion of the incremental capital taxes and water rental fees from the development of the Keeyask project to be used to mitigate the impact of rate increases on lower income consumers, northern and aboriginal communities.” Since the affordability program should be designed to ensure energy security for those unable to cope with rising energy costs, however, funding from all taxpayers rather than simply higher income ratepayers or dedicated fees seems most appropriate, much as other income security programs such as Manitoba’s Employment and Income Assistance are financed from general revenues.⁴ Moreover, funding from our progressive system of general taxation would ensure that higher income households provide the most support for energy poor households.

The cost of Ontario’s electricity support programs is projected to be \$2.5 billion over the next three years, or \$833 million per year.⁵ Since Ontario’s population is 10.6 times that of Manitoba (13.6 million vs. 1.3 million), a rough estimate is that an electricity support program such as the one now in place in Ontario would cost about \$80 million per annum in Manitoba. One impediment to direct public funding in Manitoba might be ongoing concern about reducing a deficit that stood at \$890 million in 2016-17,⁶ since Ontario’s decision to shift the burden of its Electricity Support Program to taxpayers arose as Ontario returned to a balanced budget for 2017-18.⁷

4 It should be noted that Manitoba’s Employment and Income Assistance program already provides assistance for utility costs in certain circumstances, whether the utility costs are included in the rent or not (Manitoba Assistance Regulation, 404/88, Section 4.1, SCHEDULE B).

5 <http://www.fin.gov.on.ca/en/budget/ontariobudgets/2017/budget2017.pdf>

6 http://www.gov.mb.ca/finance/budget17/papers/Summary_Budget_r.pdf

7 <http://www.fin.gov.on.ca/en/budget/ontariobudgets/2017/ch1.html#ch12>

4.2 Energy Efficiency Programs

Energy efficiency programs are now widespread across most jurisdictions, including Manitoba (p.25). These programs are important in addressing energy poverty in the long term, as the Report recognizes, because “the poor disproportionately occupy energy-inefficient homes” and, referring to upgrading of housing stock, appliances and other energy saving devices, the poor also “lack the resources necessary to maximize the benefit they receive from electricity and natural gas services by investing in this equipment” (p.66). Given the appropriate incentives, especially rising energy costs, programs targeted to low-income households to subsidize energy saving capital investments should be an effective means to address some energy poverty in the long term.

Manitoba Hydro’s Affordable Energy Program (AEP) seems to be a modest starting point for at least some aspects of this task. It provides assistance to lower-income households (below LICO-125) to implement energy efficient upgrades (p.22). Setting aside the question of whether the LICO-125 cutoff is appropriate in the Manitoba case, as discussed above, there is also the question of participation. While the AEP has achieved “solid results to date” (pp.22-23), the Report identifies concerns that program uptake remains modest and that significant barriers to participation may exist, including awareness of the program, its features, eligibility conditions and benefits (p.24). It notes that AEP and other affordability programs of Manitoba Hydro could be “better coordinated, in the sense that customers are often not referred to initiatives that might help them manage their energy bills.” While some of this concern refers to bill payment features that will not address growing energy poverty if rates rise rapidly as proposed, it would also apply to energy efficiency or weatherization programs that require significant investment to improve housing stock and equipment. In this respect, it would seem that Manitoba Hydro could examine jurisdictions like Colorado, where rate assistance and arrears management programs for low-income households are integrated with weatherization assistance programming. Identifying households that are energy poor would allow Manitoba Hydro to target energy efficiency information campaigns directly to this vulnerable group.

5. Miscellaneous

The Report examines in detail those customers in arrears. While this information may be useful from a business standpoint, it is more difficult to see a clear link to energy poverty. The Report correctly points out that pressures arising from high energy consumption relative to income may result in a number of responses, including inconvenient or uncomfortable reductions in energy use and reduced spending on other necessities as well as arrears (p.18). Those spending more than 6% of income on energy were more likely to exhibit some combinations of these behaviours. Thus, it is not surprising that the Report concludes that “the relationship between arrears and energy poverty is in fact fairly weak . . . the factors causing or leading to arrears are highly specific to individual households” (pp.18-19).

The Report also presents regression analysis to explain energy poverty. In my view, these results are not particularly useful, since the dependent variable is whether a household is energy poor or not. Aside from the questions about the Report’s “made in Manitoba” definition of an energy poor household discussed above, I wonder what can be learned from this exercise. The role of income in energy poverty cannot be addressed because low income is part of the definition of energy poverty, i.e. households with income below LICO-125. A more informative exercise would have been one that used the threshold share of income spent on energy (6% and 10%) as the dependent variable and then investigated how income affected the likelihood of rising above this threshold in conjunction with other variables (household characteristics). As it stands, the logit regression analysis is uninformative, finding only the number of employed household members to be significant in explaining energy poverty, and the explanation for this variable reverts to its role as an element of household income. If household income were included as a regressor and not part of the dependent variable, then the independent role of household employment (apart from income) would be more clear and perhaps other household characteristics would also emerge to explain additional aspects of energy poverty.

6. Conclusion and Recommendations

The Report continues badly needed research into the extent of energy poverty, its causes and possible remedial measures. While the “made in Manitoba” methodology to define energy poverty is questionable, given the data available and the important climatic differences between

Manitoba and other jurisdictions, there seems little doubt that there is substantial energy poverty in Manitoba. The simulations of the impact of higher electricity rates in the Report also make it clear that rate increases of the size proposed by Manitoba Hydro will have a dramatic impact on energy poverty, increasing the population that is energy poor by as much as one-third.

6.1 Recommendations of the Affordability Report

The Report also provides valuable analysis of potential policies to address energy poverty and a modest set of recommendations but no implementation plan (p.41). The recommendations (pp.33-40) might be summarized as:

- (1) Manitoba Hydro should continue to do what it is doing regarding low-income energy efficiency and weatherization programs, emergency assistance, and equal payment and other bill assistance plans;
- (2) Manitoba Hydro should consider initiatives to enhance energy efficiency programs and the participation of landlords and tenants in energy affordability programs, to mitigate cold-weather impacts through alternative rate designs, to enhance and expand equal payment programming, and to develop a bill payment/matching program;
- (3) Manitoba Hydro should seek new funding sources, including a portion of the incremental capital taxes and water rental fees from Keeyask as recommended by the PUB in the NFAT report (p.252).

6.2 My Recommendations

The extent of the proposed increases and their expected impact on energy poverty imply that only direct rate assistance and energy efficiency plans will have any significant mitigating impact. Emergency assistance, arrears management, equal payment and related (billing management) programming are only intended to deal with short-term problems and, insofar as repeated application might assist the energy poor, would provide perverse incentives to avoid energy conservation and investments to improve energy efficiency. If we are to take energy

poverty remediation seriously in the context of rapidly rising hydro rates, I would therefore recommend that:

(i) Manitoba Hydro and its stakeholders continue their research into energy poverty and its characteristics, beginning with an investigation of the relationship between household energy expenditure share and income using Manitoba data to develop a “made in Manitoba” definition of energy poverty;

(ii) Manitoba Hydro develop an efficient rate assistance program that provides assistance to low-income energy poor households but that is not directly tied to the level of energy consumption, along the lines of the fixed credit approaches taken by Colorado and Ontario;

(iii) Manitoba Hydro enhance its Affordable Energy Program that provides assistance to lower-income households to implement energy efficient upgrades

(iv) Manitoba Hydro develop a plan to coordinate rate assistance, energy efficiency and billing management programs for low-income households to increase participation in all aspects of affordable energy programming.

References

Compton, Janice, and Wayne Simpson (2017) “The Effect of the Proposed Hydro Rate Increase on the Manitoba Economy,” report prepared on behalf of the Coalition for the Manitoba Hydro 2018/19 General Rate Application, October

Manitoba Hydro (2017) *Manitoba Hydro Bill Affordability Collaborative Process: Summary Report and Recommendations*, Appendix 10.5 of the Manitoba Hydro 2017/18 and 2018/19 General Rate Application, January

Public Utilities Board (2014) *Report on the Needs For and Alternatives To (NFAT): Review of Manitoba Hydro’s Preferred Development Plan*, June

Stevens, Harvey and Wayne Simpson (2014) “Impact of Increases in Electricity Rates on Low and Now Low Income Households in Manitoba,” report prepared on behalf of the Consumers Association of Canada (Manitoba) for the Needs For and Alternatives to (NFAT) Review of Manitoba Hydro’s Preferred Development Plan, February

Table 1. Low income cut-offs (LICO) before tax by community and family size,
2015

	Rural	Pop<30,000	Pop 30,000-	Pop 100,000-	Pop
Family size	areas		99,999	499,999	500,000+
1 person	16934	19266	21055	21186	24600
2 persons	21082	23983	26211	26373	30625
3 persons	25917	29484	32223	32423	37650
4 persons	31468	35799	39124	39367	45712
5 persons	35689	40602	44373	44648	51846
6 persons	40253	45793	50046	50357	58473
7 persons +	44815	50984	55719	56064	65101

Source: Cansim Table 206-0094, Statistics Canada

Appendix A

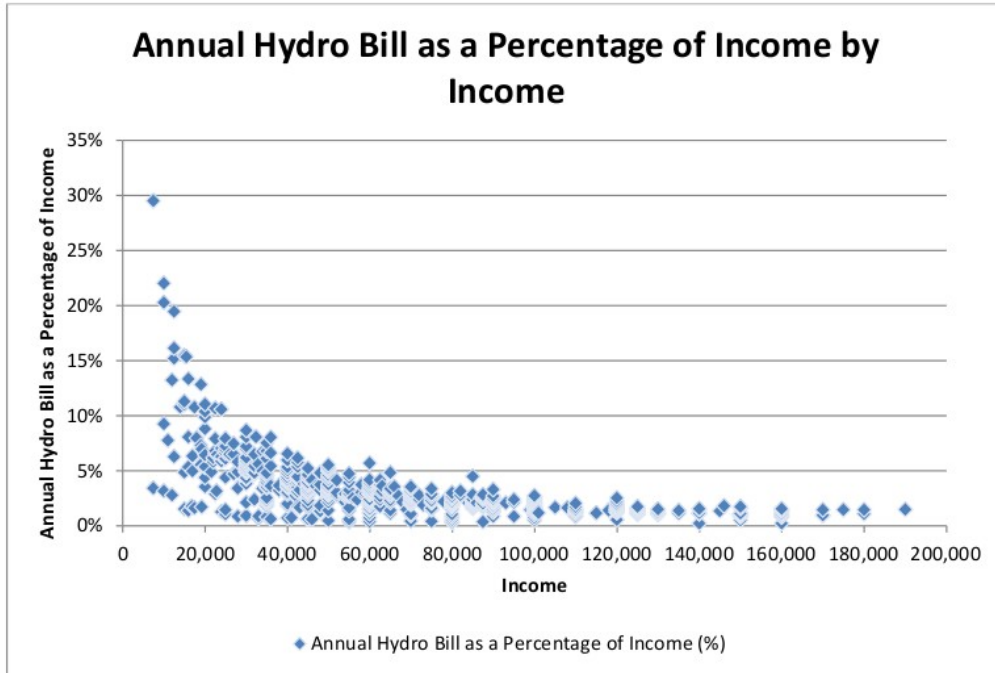


Figure 1: Annual Hydro Bill as a Percentage of Income by Income
Source: Survey of Manitoba Hydro customers (N = 587)

Appendix B: Statement of Qualifications and Duties – Dr. Wayne Simpson

Statement of Qualifications

Dr. Wayne Simpson has a PhD from the London School of Economics (1977) and is a Full Professor in the Department of Economics at the University of Manitoba, where he has taught since 1979. His areas of academic expertise include labour economics, applied econometrics, applied microeconomics, quantitative methods, and economic and social policy analysis.⁸ He has authored or co-authored three books and more than fifty peer-reviewed articles on these and related topics, including one book and several articles that deal with poverty and income maintenance issues. He is currently on the editorial board of *Canadian Public Policy*, Canada's foremost peer-reviewed academic journal for economic and social policy, and the executive council of the Canadian Economics Association. He was a 2014 recipient of the McCracken award for the development and analysis of economic statistics from the Canadian Economics Association. Dr. Simpson has published and taught in the area of urban and regional economics and has expertise in the determination of the regional impact of decisions by firms and governments.

Dr. Simpson expertise in applied microeconomics and econometrics are especially relevant to this hearing on Manitoba Hydro rates. Applied microeconomics is the study of the behavior of individual agents (e.g., firms and households) in the market using modern theory and empirical methods. It seeks to apply the analysis to practical problems such as risk management and investment strategies. Applied econometrics uses specific statistical techniques, particularly regression methods, to analyze and predict economic behavior and apply it to practical social problems.

In addition to his academic career, Dr. Simpson has worked at the Bank of Canada, the federal Department of Labour, and the Economic Council of Canada. He has also served as a consultant to the private sector and government, primarily in the areas of labour economics and policy evaluation. In recent years, he has served as an expert advisor to Prairie Research Associates

⁸ His professional expertise in applied microeconomics and applied econometrics provides a foundation for the analysis of issues related to the management of risk by firms and to the assessment of risk using modern economic and statistical techniques. His expertise also provides a framework to assess the contributions of equities, bonds and interest rates to investment risk.

(PRA) Inc. and Human Resources and Skill Development Canada as well as to CAC Manitoba through the Public Interest Law Centre.

Wayne Simpson has provided expert evidence at the Public Utilities Board including at the 2014 Needs for and Alternatives to Review of Manitoba Hydro's Preferred Development Plan, the 2007-2008 and 2016 hearings to determine maximum fees for payday loans and the 2007, 2010, 2013, 2014 and 2016 Manitoba Public Insurance Rate Applications on the Rate Stabilization Reserve and investment strategy. He also provided written evidence in the 2013 payday loan review.

Wayne Simpson will rely on his expertise in applied econometrics, applied microeconomics, and social policy application and analysis in this proceeding.

Dr. Simpson's curriculum vitae was filed with the Consumers Coalition's application to intervene in this proceeding.

Duties

The following duties were assigned to Dr. Simpson in the Manitoba Hydro 2017/18 and 2018/19 General Rate Application.

The Public Interest Law Centre retained Dr. Simpson's services to assist the Consumers Coalition with its participation in the Public Utilities Board review of Manitoba Hydro's Application on issues related to rate increases and rate impacts, bill affordability, and risk and uncertainty analysis.

Dr. Simpson's duties include:

- Rate increases and rate impacts
 - Conducting a literature review on regional impact analysis, developing a methodology and analyzing the impact of Manitoba Hydro rate increases on Manitoba economy and vulnerable rate classes;
 - Drafting first and second rounds of Information Requests;
 - Reviewing responses to Information Requests;
 - Drafting a report as expert evidence;
 - Preparing response to Information Requests on the report; and

- Preparing for and attending the Public Utilities Board hearing, including the providing testimony.
- Bill affordability
 - Conducting a literature review on energy poverty, including identifying problems and options and conducting an analysis of options;
 - Drafting first and second rounds of Information Requests;
 - Reviewing responses to Information Requests;
 - Drafting a report as expert evidence;
 - Preparing response to Information Requests on the report; and
 - Preparing for and attending the Public Utilities Board hearing, including the providing testimony.
- Risk and uncertainty analysis
 - Reviewing past assessments and outstanding issues;
 - Reviewing Tab 7 Electric Load Forecast, Demand Side Management & Energy Supply, App 7.1 2016 Load Forecast;
 - Reviewing Tab 4 Financial Targets & Uncertainty Analysis;
 - Drafting first and second rounds of Information Requests;
 - Reviewing responses to Information Requests;
 - Drafting a report as expert evidence (if necessary);
 - Preparing response to Information Requests on the report; and
 - Preparing for and attending the Public Utilities Board hearing, including the providing testimony (if necessary).

Dr. Simpson's retainer letter includes that he is to provide evidence that:

- is fair, objective and non-partisan;
- is related only to matters that are within his area of expertise; and
- to provide such additional assistance as the Public Utilities Board may reasonably require to determine an issue.

Dr. Simpson's retainer letter also includes that his duty in providing assistance and giving evidence is to help the Public Utilities Board. This duty overrides and obligation to the Manitoba Branch of the Consumers Coalition.