

IN THE DARK:
AN EXPLORATION OF THE HUMAN RIGHTS IMPLICATIONS
OF ENERGY POVERTY IN RURAL ONTARIO

Adrienne J. Scott

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INTRODUCTION.....	1
1. UNEQUAL TREATMENT OF HYDRO ONE RURAL CUSTOMERS.....	4
1.1 Ontario’s fragmented system of electricity distribution	4
1.2 The Start of Rural Rate Assistance.....	6
1.3 Increasing distribution rates for Hydro One rural customers.....	9
1.4 The stagnation of rural rate protection	12
2. ENERGY POVERTY AND RURAL HYDRO ONE CUSTOMERS.....	15
2.1 Energy and affordability: the energy poverty dynamic.....	15
2.2 Particular vulnerabilities of rural households	19
2.2.1 Socio-economic conditions and trends.....	20
2.2.2 Households that are vulnerable to energy poverty – what the research tells us	22
2.3 The situation in rural Ontario.....	22
2.3.1 Arrears and Disconnections.....	24
2.4 Results of an energy poverty analysis for low-income rural customers of Hydro One.....	25
3. THE INTERNATIONAL HUMAN RIGHTS DIMENSIONS OF ENERGY ACCESS	27
3.1 The Right of Access to Energy as a Human Right	28
3.1.1 The right of access to energy as part of the right to adequate housing.....	29
3.1.1.1 Habitability – a matter of health and quality of life	30
3.1.1.2 Access to essential services, materials, facilities and infrastructure	30
3.1.1.3 Economic Access	32
3.2 Energy underpins several other human rights.....	33
3.3 Canada’s violation of the right of economic access for rural customers of Hydro One	37
3.3.1 Rate decisions of the Ontario Energy Board.....	39
3.3.2 Mitigation programs	42
4. OBTAINING REDRESS - LEGAL AND OTHER AVENUES.....	45
4.1 International complaint mechanisms	46
4.2 Domestic Avenues.....	47
4.2.1 Interventions in Hydro One Rate Application Proceedings and Rights of Appeal under the Ontario Energy Board Act, 1998	48
4.2.2 Legal Challenge under the Canadian Charter of Rights and Freedoms	50
4.2.2.1 Section 15.....	50
4.2.2.2 Section 7	52
4.3 Re-visioning of Ontario’s Electricity Support Programs	54
CONCLUSION	55
BIBLIOGRAPHY.....	56
APPENDIX ONE: Comparative data - Distribution and Transmission Charges for Residential Customers of Hydro One Networks Inc.	75
APPENDIX TWO: Exploring higher electricity consumption of Hydro One rural customers	81
APPENDIX THREE – Energy Poverty Analysis	85

INTRODUCTION

During the past half a century, electricity customers in Ontario have become accustomed to regular increases in their electricity bills, but the average cost of electricity (per kilowatt-hour) has doubled in the last 10 years. News reports in the summer of 2016 described how customers in urban centres like Oshawa and Windsor were shocked by the size of their bills.¹ There has been a groundswell of complaints throughout the province that hydro is no longer affordable.

The issue is especially acute for 330,000 households in rural Ontario (comprising about one third of Hydro One's approximately 983,000 year-round residential customers) that depend on Hydro One for their electricity service. These customers live in low-density rural zones and have been living with higher electricity bills for decades as the cost of providing power to rural areas is more costly than it is for other customers in the province. While the cost of delivering power to rural parts of the province has always been higher, distribution charges have increased dramatically during the past five years in particular. These charges are approved by the Ontario Energy Board, the province's electricity regulator. These charges combined with recent increases in electricity prices mean that Hydro One's rural customers are paying the most expensive electricity bills in Canada or likely anywhere else in North America.

For Peggy Mills, an elderly resident of rural McArthur's Mills near Bancroft, the weight of increasing bill payments for electricity became insurmountable. Being on a fixed income she was unable to keep up with her monthly Hydro One bill along with her arrears payments. Hydro One disconnected service to the 74-year-old pensioner in the summer of 2016. Her story was recounted in the *Toronto Star*. Mills explained that she was unable to deal with rising bills despite trying to reduce her consumption. After being disconnected she had to cope with losing her electricity as well as her water supply. Being a rural householder, her water pump won't work without power.

Almost one-quarter of all Hydro One residential customers were behind in their bill payments at the tail end of 2015 – almost 225,000 households. Low-income rural customers of Hydro One are

¹ Enwin Utilities customer Amanda Banwell's bill for the month of July totalled \$400.00 (compared to \$200 for electricity and water the summer of 2015. See Dan Aekema, "High price of staying cool; Food or comfort," *The Windsor Star*, August 20, 2016, at A.1. Oshawa resident Jeff Goodall was "utterly shocked" when he saw his hydro bill for August 2016 – it was \$101.15 -- more than double the \$42.07 he paid in the same period last year." See Reka Szekely, "Oshawa MPP Jennifer French Sheds Light on Hydro Bills in Anticipation of Liberal Throne Speech," *Oshawa This Week*, September 12, 2016.

struggling under ever-increasing bill arrears. According to the United Way of Bruce Grey, in 2016 the *average* amount of arrears owed to Hydro One by their low-density rural customers was \$1,224.49. The United Way and other social agencies and charities have drawn attention to the human toll of rising electricity bills for rural customers, calling it nothing short of a social crisis.

This paper will explore rural electricity bills and energy poverty through the lens of international human rights law and Canada's international human rights obligations. One may question how and why electricity bills would be a human rights issue, however the reach of international human rights law goes far beyond the ambit of political and civil rights. As early as 1948, under the *Universal Declaration of Human Rights*, States recognized that human rights entitlements included the basic needs and supports that people require in order to sustain life and live a dignified and secure existence. These rights include the right to adequate housing, to food, and to water. These are human rights to which everyone is entitled, and basic services like electricity underpin many of these rights.

The structure of this paper is as follows:

Section 1 examines the historical origins of the rural-urban disparity with regard to electricity costs and how the disparity continues to increase under rate decisions mandated by the Ontario Energy Board. The government's rural rate relief program is also examined. That program began in 1981 but has essentially languished for close to two decades. As a result, it has failed to mitigate the impacts of higher electricity bills on Hydro One rural customers.

Section 2 explores the issue of energy insecurity, often referred to as "energy poverty." A household is energy poor when energy costs for basic services like electricity consume an unreasonable proportion of a household budget. This is especially serious for low-income households that have less money in their household budget overall. This section of the paper also explores whether energy poverty affects rural Ontarians any differently than urban households and examines the available data on energy poverty in rural Ontario. There is a significant knowledge and research gap in this area. To address this gap, an energy poverty analysis was performed for rural low-income customers of Hydro One.

Section 3 of the paper examines this issue from the perspective of international human rights law which recognizes electricity as an "essential need" that is intrinsic to the right to an adequate standard of living under Article 11 of the *International Covenant on Economic, Social, and Cultural Rights* and other international human rights instruments. Energy poverty engages other international human rights especially in the rural context, including the right to health and the right to water. The paper explores

whether deprivations of these rights by Ontario constitute a violation of Canada's international human rights obligations.

Finally, Section 4 discusses a remedial approach to ensure compliance with international human rights obligations. The paper proposes a multi-pronged strategy to address this issue at the international and domestic levels.

A variety of sources were consulted during the preparation of this research paper including international treaty instruments as well as jurisprudence and commentary of international and regional human rights supervisory bodies. A variety of secondary sources, such as periodicals, books and research articles and government reports and documents were also consulted. Data on customer numbers and distribution rates for Hydro One and other utilities were obtained from Hydro One rate application filings and Ontario Energy Board decisions on rate applications. Bill estimates and bill calculations relied on several sources including the OEB and other government sources.

There are a wide variety of energy sources that people depend upon for their energy needs. This research paper examines household expenditures for electricity only.

1. UNEQUAL TREATMENT OF HYDRO ONE RURAL CUSTOMERS

1.1 Ontario's fragmented system of electricity distribution

There are about 70 local utilities across the province and they vary widely in terms of customers and the areas they service. Local utilities predominately serve urban areas and populated centres while the remainder of this vast province is served by Hydro One Networks Inc. (Hydro One).² This patchwork of local electricity distribution is unique in Canada and stands in stark contrast to many other provinces that have a single distributor serving the entire province. According to a 2012 review, the fragmented system of distribution of electricity in Ontario is a “product of history rather than the outcome of rational planning.”³ That history began in the early 1900s, when municipalities in southern Ontario demanded access to electrical power and a role in delivering that power to their own ratepayers. As of the mid-1970s, there were over 350 small municipal utilities.⁴

HEPCO (later known as Ontario Hydro)⁵ was created in 1906 to ensure a supply of electricity and transmit that power throughout the province to the municipal utilities and large industrial users.⁶ Ontario Hydro was also obligated to supply electricity to areas not served by municipal utilities.⁷ In 1980, Ontario Hydro served 770,000 of its own “retail customers” throughout the vast area referred to as the “rural power district.”⁸

In the 1970s, *Globe & Mail* reporter Thomas Claridge began writing articles about an increasing divide between rural and urban electricity rates in Ontario.⁹ During this period, small commercial and residential customers enjoyed rates as low as any in North America and the typical Ontario residential

² These entities are referred to as local utilities or “local distribution companies” (LDCs).

³ In other jurisdictions, province-wide distributors are part of a “vertically integrated utility handling both the transmission and distribution of electricity. See Ontario Distribution Sector Review Panel, *Renewing Ontario's Distribution Sector: Putting the Consumer First* (December, 2012) at 6, 9. [Ontario Distribution Sector Review Panel]

⁴ Ontario Distribution Sector Review Panel, *supra* note 3 at 5, citing N.B. Freeman, *The Politics of Power: Ontario Hydro and its Government, 1906-1995*, (Toronto: University of Toronto Press, 1996) at 10-13; Ontario Hydro, *Monthly Rates and Comparable Bills: Ontario Hydro and the Associated Municipal Utilities, July 1976* (Toronto: author, 1976), explanatory note for section 2.

⁵ Amendments to the *Power Commission Act* provided for the reconstitution of HEPCO as a provincial Crown corporation. The *Power Commission Act* was renamed the *Power Corporation Act*. See the *Power Commission Amendment Act, 1973*, S.O. 1973, c 57

⁶ Ontario Distribution Sector Review Panel, *supra* note 3 at 5.

⁷ Premier William Davis, Statement in the Legislature by The Honourable William G. David, Premier of Ontario - Re: Rural Electrical Rates, October 10, 1980 at 2, reprinted in Ontario Hydro, “Reduction of Electrical Retail Rate Differentials in Ontario” (Toronto, Ministry of Energy, 1980). See Appendix C (ii) [Premier William Davis, Statement in the Legislature (1980)].

⁸ Retail customers of Ontario Hydro included residential, farm, and general service customer classes. See Thomas Claridge, “Electricity costs 50% more in rural areas than in the city,” *The Globe & Mail*, November 10, 1977 at 5. [Claridge (a)]

⁹ *Ibid.* Other articles authored by Thomas Claridge are noted in this section. See below.

bill was 12% below the Canadian average.¹⁰ However, there was no “typical” residential bill in Ontario in any real sense. Customer bills varied widely across the province.¹¹ For example, residential customers served by the municipal utility in Webbwood just east of Espanola paid \$29.35 for 1,000 kilowatt-hours (kWh) of electricity per month in 1977. In Tweed, north of Belleville, the bill was \$18.75.¹²

The average monthly bill for the 353 municipal utilities that existed at that time was \$23.21,¹³ whereas Ontario Hydro residential customers paid significantly more compared to the average – roughly 30 percent more. Their bill was \$34.63.¹⁴ Ontario Hydro rural customers paid electricity rates roughly 50 percent above those in Toronto.¹⁵

While there was a wide spectrum of rates across the 300 or so municipalities, all of them were below the rural residential rate. The difference in cost was mainly due to customer density. Municipal utilities had a concentrated customer base whereas Ontario Hydro’s rural power district covered a massive geographic area, roughly 250,000 square miles (400,000 square kilometres) with an average density of only 14 customers per mile of line.¹⁶ It was left to the Ontario Hydro customers in the rural power district to meet all the costs of distributing electricity within the area.¹⁷ Rural customers of Ontario Hydro paid the same rates no matter whether they lived in the province.¹⁸

Meanwhile, the urban-rural gap persisted, fluctuating between 28 and 34% in 1976 -1980. A 1979 survey revealed that Ontario Hydro rural customers paid the highest rates in Canada west of New

¹⁰ Task Force Hydro, *Hydro in Ontario: Financial Policy and Rates*, Report Number Four, April 11, 1973 (Toronto: Government of Ontario, 1973 at 68-71. [Task Force Hydro, Report Number Four]

¹¹ Until 1998, Ontario Hydro set its own rates as did the municipal utilities (subject to Ontario Hydro’s review and approval). See Task Force Hydro, Report Number Four, *supra* note 10 at 88. See additional references below.

¹² *Monthly Rates and Comparable Bills: Ontario Hydro and the Associated Municipal Utilities*, (Toronto: author, 1977) [Ontario Hydro, 1977]. Electricity consumption is measured in units called kilowatt-hours (kWh)

¹³ *Ibid.* Note that this is the weighted average.

¹⁴ Claridge (a), *supra* note 8 at 5. This is the amount that would be charged to year round residential R2 customers in what was then called “All-Year Group Two.” It should be noted that Ontario Hydro had two classes of year round residential customers in the late 1970s. A small number of customers in “All-Year Group One,” established in 1964, lived in what was then referred to as a “high density” zone. The remainder, referred to as “normal density” at the time, were in “All-Year Group Two.” The rates paid by the two classes were only nominally different in the late 1970s. See Ontario Hydro, 1977, *supra* note 12 at 12.

¹⁵ Claridge (a), *supra* note 8 at 5. To further illustrate the variation, 250 kWh of electricity cost \$11.75 in the tiny community of Bridgen. In another area just outside of Sarnia near Corunna which was served by Ontario Hydro, the bill was close to four times as much. See Thomas Claridge, “How some pay more for electricity from the same Hydro grid,” *The Globe and Mail*, January 8, 1977, at 1-2 [Claridge (b)].

¹⁶ Premier William Davis, Statement in the Legislature (1980), *supra* note 7, Appendix C (ii) at 3. In his statement the Premier also noted that the average customer density in the municipal system was 100 customers per mile of distribution line. See page 3.

¹⁷ Claridge (b), *supra* note 15 at 1-2.

¹⁸ Claridge (b), *supra* note 15 at 1-2.

Brunswick.¹⁹ Politicians joined the media in calling for relief for rural customers. Former energy minister James Taylor, commented that “the rural customer is taking a shellacking. You have to wonder who is looking after his interests.”²⁰

1.2 The Start of Rural Rate Assistance

In April 1980, Premier William Davis announced that the government intended to substantially reduce the rural rate differential for Ontario Hydro customers “who by reason of geography are served by Hydro directly and who pay more than municipal customers.” The Premier noted there was a long-standing principle that each municipality should pay for its own retail distribution costs, however, when the principle was applied to the customers in Ontario Hydro’s rural power district “there is an inequitable burden being placed on those who live in the rural parts of Ontario.” The Premier added that this inequity is “going to become increasingly burdensome as the trend continues toward urbanization.”²¹

Following receipt of an Ontario Hydro task force report on possible options for rural rate assistance, the government announced that the cost of electricity paid by year-round rural and farm residential customers would be “substantially reduced” effective January 1, 1981. The government opted to cap the rate differential at 15 percent in line with the recommendation made by Ontario Hydro.²² In announcing the proposed amendments to the *Power Corporation Act* the Energy Minister Robert Welch stated that “[A]lthough the cost of distributing electricity in rural areas is much higher than in urban areas, a reduction of the rate differential to 15 per cent is both necessary and reasonable.”²³ Bill 141 received third reading two weeks later was passed without debate.²⁴

About 530,000 Ontario Hydro customers saw reductions in their bills in the form of a Rural Rate Assistance (RRA) credit. Ontario Hydro recouped the foregone revenue through extra charges to bulk

¹⁹ Thomas Claridge, “The Power Game: rural electricity rates vary from \$23.48 to \$61.63,” *The Globe and Mail*, June 18, 1979 at 4.

²⁰ *Ibid.*

²¹ Premier William Davis, Statement in the Legislature (1980), *supra* note 7, Appendix C (ii) at 4-6.

²² Ontario Ministry of Energy, News Release: Ontario Legislation Will Reduce Differential Between Rural and Urban Bills,” October 15, 1981 at 1-2; Ontario Hydro’s recommendation was contained in its reported entitled “Reduction of Electrical Retail Rate Differentials in Ontario, (Toronto: Ministry of Energy, 1980) at 1, 29.

²³ Ontario Ministry of Energy, News Release: Ontario Legislation Will Reduce Differential Between Rural and Urban Bills,” October 15, 1981 at 2.

²⁴ *The Power Corporation Amendment Act 1981 (No. 2)*, S.O., 1981, c 41 (received royal assent on October 30, 1981). Section 2 of the Act amended the *Power Corporation Act*, RSO 1980, c 384 by adding a new provision (section 90a), later s. 108 of the Act. See *Power Corporation Act*, RSO 1990, c P.18, s. 108 (since repealed).

power rates. RRA-eligible customers were all residential year-round customers in the rural power district as well farm-class customers having a residence in the Ontario Hydro retail system).²⁵

The amount of the RRA monthly credit provided to all eligible customers changed from year to year. It was a function of the extent of the differential between Ontario Hydro rural rates and those of municipal utilities.²⁶ Examples of RRA credit amount rates set under the *Power Corporation Act* between 1981 and 1999 are listed Table 1.1 and 1.3 in Appendix One.

Ontarians across the province saw their power costs increase by 30 per cent in in the early 1990s²⁷ and there is evidence that the rate gap between rural customers of Ontario Hydro and customers of municipal utilities increased during this period.²⁸ However, the rural rate assistance program provided monthly discounts to Ontario Hydro's customers to maintain the rural/urban rate gap at a maximum of 15%. Public concern about escalating prices led the government to freeze the wholesale price of electricity in 1993. During the price freeze, which lasted for close to ten years, electricity distributors were free to adjust rates charged to customers.²⁹

There were several developments of note in 1997. A new urban density (UR) rate class was established by Ontario Hydro due to development in parts of the rural power district.³⁰ The other two classes for year round customers remained.³¹ Furthermore, a decision was made to restrict rural rate assistance to R2 customers only.³²

²⁵ Ontario Ministry of Energy, News Release: Ontario Legislation Will Reduce Differential Between Rural and Urban Bills," October 15, 1981 at 3; Bruce Bacon, "Rural Rate Assistance as a Ratemaking or Rate Recovery Approach which the OEB Should Consider When Assessing the Generic Hearing Issues Related to Natural Gas System Expansion," (prepared for the Municipality of Kincardine, the Municipality of Arran-Elderslie, and the Township of Huron-Kinloss), March 21, 2016 at 9-10 [Bruce Bacon].

²⁶ Ontario Hydro also calculated the global RRA amount each year. See section 108 of the *Power Corporation Act*, RSO 1990, c P.18 (since repealed). An explanation of the mechanics of calculating the monthly and global RRA amounts is described in detail in Bruce Bacon, *ibid* at 7-11.

²⁷ Ontario, Ministry of Energy, Science and Technology, *Direction for Change: Charting a Course for Competitive Electricity and Jobs in Ontario*, (Toronto: author, 1997) at 5 [Ministry of Energy, 1997]

²⁸ Rates in Kingston would be \$81 annually in 1992 compared to \$118.20 for an Ontario Hydro rural customer. See Erick Ko, "Township Woman 'Steamed' Over Rising Hydro Rates," *The Whig Standard*, February 7, 1992 at 27.

²⁹ Electricity bills were bundled at that time. Distributors set their prices which were a combination of the cost of energy that they purchased from Ontario Hydro and their own costs for distribution.

³⁰ This new rate class was for year-round residential customers who lived in an "urban density zone," namely an area with 3,000 or more customers and a line density of at least 60 customers per km. Hydro One Networks Inc., email of 26 October 2016.

³¹ At the time, the R1 rate class was for customers living in what was deemed a "high density zone" (an area with 100 + customers and a minimum line density of 15 customers per km). R2 customers lived in an area not deemed an urban density or high density zone. This was referred to at the time as "normal density." See OEB, Rate Order - Hydro One Services Company, RP -1998-0001, March 15, 1999 at 1-2.

³² Hydro One Networks Inc., email of 26 October 2016.

The Conservative government of Mike Harris also signalled its intention to introduce competition to Ontario's electricity sector and increase regulatory oversight related to pricing for generation, transmission and electricity distribution.³³ A major motivation for this new direction was the cost of electricity.³⁴ The government also committed to support rural customers of Ontario Hydro who were paying "excessively high rates." It stated that programs which "support price equity" would continue to be financed by electricity consumers.³⁵

The changes were implemented through various legislative amendments.³⁶ Besides introducing competition in the electricity market, other changes included:

- **The splitting up of Ontario Hydro and the commercialization of municipal utilities** – Hydro One assumed control over Ontario Hydro's transmission and distribution assets and business operations.³⁷ Its generation assets were transferred to Ontario Power Generation. Municipal utilities were also disentangled from municipal government and legislation and transformed into commercial enterprises³⁸
- **The modernization of the regulatory regime for the electricity sector** -- the Ontario Energy Board (OEB) assumed responsibility for distribution and transmission licensing and rate-setting as well as electricity pricing³⁹
- **The unbundling of charges on customer bills** --There are now separate charges for electricity (per kilowatt-hour), and delivery of power (transmission and distribution), all set by the OEB.⁴⁰
See Exhibit A.

³³ Ministry of Energy, 1997, *supra* note 27 at 1-16

³⁴ *Ibid.*

³⁵ *Ibid* at 8 and 11.

³⁶ See *Electricity Act, 1998*, SO 1998, c 15, Sched. A; *Ontario Energy Board Act, 1998*, S.O. 1998, c 15, Sched B [*Ontario Energy Board Act, 1998*]. See also Hydro One Networks Inc., Interrogatory Response (OEB Staff #9) - RP-2003-0044 Exh. J8 Tab 10 Sched. 9, 1-5 at 1, 3-4.

³⁷ Hydro One Inc. operates in association with several subsidiaries. Hydro One Networks Inc. is the province's largest electricity distributor. Another subsidiary, Hydro One Remote Communities Inc., provides service to 21 remote northern communities.

³⁸ They became separate entities under Ontario's *Business Corporations Act*. Municipalities hold controlling shares in these enterprises. See Hydro One Networks Inc., Interrogatory Response (OEB Staff #9) - RP-2003-0044 Exh. J8 Tab 10 Sched. 9, 1-5 at 1, 3-4. Hydro One bought several of these utilities following the transition, thereby becoming the province's largest distributor. See Adrian Morrow et al, "The Long Road to Privatization of Hydro One," *The Globe and Mail*, March 13, 2015.

³⁹ Ontario Energy Board, History of the OEB, (online), 2016.

⁴⁰As noted previously, prior to 1998, Ontario Hydro set its own rates as did the municipal utilities (subject to Ontario Hydro's review and approval). See Task Force Hydro, Report Number Four, *supra* note 10 at 88. During this period, the costs associated with producing the electricity, transmitting it through the grid and distributing it to individual households and businesses was bundled into a combined rate per kWh. With the changes in 1998, these various charges were "unbundled."

EXHIBIT A

A typical bill includes four kinds of charges: electricity charge (usage in kilowatt-hours); delivery; regulatory charges; and taxes.

Electricity usage/consumption (energy charges): Customers are charged for their electricity usage in kilowatts-hours (KWh). The price is set by the OEB. Customers across Ontario pay the same rates. While energy charges are not the reason for the rural/urban rate gap, price hikes over the past decade have increased the overall energy burden of all residential customers.

Delivery charge: A customer bill will have a single line charge for electricity “delivery” across the electrical grid. Delivery consists of two main sub-areas: Transmission and distribution.

Transmission Charges: Transmission companies operate the high-voltage transmission system that carries electricity from generating stations to local utilities. Transmission charges set by the Ontario Energy Board make up a relatively small proportion of the overall delivery charge on a bill and don’t differ much from utility to utility. See Table 1.2 in Appendix One.

Distribution Charges: Local utilities distribute electricity to customer residences and businesses via low voltage lines. The charges set by the OEB pay for general operations and administration as well as the costs of building and maintaining the distribution system, including overhead and underground power lines, poles, and transformers. There are two distinct distribution charges: i) a fixed service charge; and ii) a variable distribution charge tied to per kWh usage. Higher distribution charges account for the higher bills paid by Hydro One rural customers.

Regulatory Charges: These standard charges are the same for all residential customers. They are variable (tied to electricity usage / kWh). They include the Wholesale Market Service Rate (WMSR) and charges for electricity assistance programs

Applicable Taxes: As of 2010, tax in the form of the provincial HST has been levied.

Sources: Based on online information available from the Ontario Energy Board, the Ministry of Energy and Hydro One Networks Inc.

1.3 Increasing distribution rates for Hydro One rural customers

This section of the paper will trace the evolution of recent rate changes for Hydro One and other residential customers to demonstrate how the rural/urban rate gap has been perpetuated and amplified under the regulatory supervision of the Ontario Energy Board (OEB). The government’s attention to rural rate protection is also examined. It will be argued that until the recent changes to rate protection

announced in the government's September 2016 Throne Speech,⁴¹ the disproportionate energy burden faced by Hydro One's rural customers had become an after-thought.

The evolution of rates for electricity distribution are the focus of this review as they account for the bulk of the delivery charges paid by electricity customers. Under OEB rate decisions, Hydro One residential rural low-density (R2) rural customers pay significantly more than other customers. The gap has widened in two ways: first, between R2 customers and other year-round Hydro One residential customers and second, between Hydro One R2 customers and those served by other local utilities. The following summarize these differences. Supporting data is provided in Appendix One.

Residential customers in Ontario pay a fixed monthly distribution service charge and a variable (volumetric) charge that is levied for every kilowatt-hour of electricity that is consumed. In terms of the monthly set service charge, Hydro One rural low-density (R2) customers pay a significant premium compared to other Hydro One residential customers. The service charge paid by low-density (R2) customers in 2016 was set at close to \$73.00 per month. With the deduction afforded by the rural rate protection credit as it stood in 2016 (\$31.50), the amount charged to R2 customers was roughly \$42.00 per month. This compares with \$19.00 per month for Hydro One "urban density" (UR) customers and is \$11.25 more per month than "medium-density" (R1) customers.⁴² The distribution service charge for all three residential year-round customers of Hydro One has risen since 2005.⁴³

The distribution service charge set by the OEB for the other 70 odd local utilities also varies considerably from one distributor to another. However, on average the 2015 charge was \$16.00 per month.⁴⁴ The service charge paid by Hydro One low-density (R2) customers was more than two times the local utility average, even with the deduction of the rural rate protection credit.⁴⁵ The figures are presented in Table 1.4 in Appendix One.

The variable (volumetric) charge for distribution can have a significant impact on customer bills as it is directly tied to consumption. In 2015, the rate set for more than 80 percent of the local

⁴¹ Ontario, Legislative Assembly, Speech from the Throne: A Balanced Plan to Build Ontario Up for Everyone, September 12, 2016 at 4.

⁴² In percentage terms, R2 customers pay 85.5 percent more than UR customers and 37% more than R1 customers.

⁴³ In relative terms the increases from 2005 to 2016 have been higher for R1 and UR classes (\$15.99 to \$30.11 for R1 customers and \$11.82 to \$22.29 for UR customers per month).

⁴⁴ The calculations for the median and the average included rates set for Hydro One Inc.'s smaller distribution companies, such as Hydro One Brampton Inc. See Ontario Energy Board, Distributors - Rates Database from Tariffs (2015).

⁴⁵ Rural rate assistance (also known as Rural Rate Protection) has continued since 2000. Developments with regard to rural rate protection are discussed later in this section.

distribution companies was less than two cents / kWh.⁴⁶ The 2015 rate for Hydro One urban-density (UR) customers was roughly in line with majority of the local utilities, however R1 and R2 customers paid a substantial premium, particularly rural low-density (R2) customers who paid more than twice as much as the majority of local utility customers, namely 4.24 cents a kilowatt-hour.

In terms of the volumetric distribution charge, the gap between Hydro One's three residential year-round rate classes has widened considerably under OEB rate decisions. Back in 2005, the variance between the classes was very low.⁴⁷ However, they began to diverge in 2010 and with further recent increases to the rural low-density (R2) rates, the gap between the R2 class and the UR class in particular has widened. For 2016-2017, the low-density (R2) rate is more than 2.5 times the urban-density (UR) rate (and close to 1.5 times the R1 rate). See Table 1.5. and 1.6 in Appendix One.

It is important to see how these rate differences affect customer electricity bills. Monthly bills based on 1,000 kWh consumption were estimated for Hydro One's year-round residential customers (three rate classes) and a selection of other local utilities. The calculations are shown in Table A below. Note that the amount for Hydro One R2 customers includes the rural rate protection discount in effect in 2016.

⁴⁶Customers of Haldimand County Hydro Inc. paid a volumetric distribution rate of 2.48 cents / kWh. The lowest rate was paid by residential customers of ELK Energy Ltd. (less than one cent / kWh). See OEB, Distributors - Rates Database from Tariffs (2015). Note: Haldimand County Hydro Inc. no longer exists.

⁴⁷ The rate for the R2 class was 1.7 cents/kWh, about 18.5 % lower than the R1 rate and just 6.2% higher than the UR rate.

Utility	Total Delivery Charges (\$ / month)	Total bill before tax (\$ / month)	Total bill, including tax (\$ / month)
Hydro One – Low-density (R2)	113.04*	252.91*	285.79*
Hydro One – Medium density (R1)	84.06	223.75	252.84
Hydro One – Urban density (UR)	59.70	199.29	225.19
Collus Power Corporation	52.12	191.79	216.72
Enwin Utilities Ltd.	50.18	189.56	214.20
Festival Hydro Inc.	50.01	189.43	214.05
ELK Energy Inc.	37.82	177.54	200.63
Orillia Power Distribution Corp.	46.61	186.19	210.40
Lakeland Power Distribution Ltd.	56.60	196.28	221.80

Table A – Sample of Monthly Bills for Hydro One year-round residential customers and other local utilities. Bills are estimates based on consumption of 1,000 kWh

*includes the rural rate protection credit discount (\$31.50 in 2016)

Source: OEB Electricity Calculator (residential). Reflects approved rates as of October, 2016.

1.4 The stagnation of rural rate protection

This section describes the government’s approach to rural rate protection for R2 customers from 2001 onwards. It begins with a discussion of changes made to rate protection in late 1998 – 2001 and concludes with an overview of new measures announced in the September 2016 Throne Speech.

The provincial government’s approach to rural rate protection changed with the repeal of section 108 of the *Power Corporation Act*. In its place, the government instituted O. Reg. 442/01 - Rural or Remote Electricity Rate Protection (RRRP) under the *Ontario Energy Board Act, 1998*.⁴⁸

The regulation provides for rate protection for eligible consumers across the rural power district as well as those in remote communities in Northern Ontario. Hydro One rural low-density (R2)

⁴⁸ Ontario Regulation 442/01 – Rural or Remote Electricity Rate Protection (filed November 30, 2001).

customers are eligible for rate protection under the regulation. An RRRP credit is applied to their bill each month.

In contrast to the provisions of the *Power Corporation Act*, the Regulation set a fixed ceiling of funding for rural rate protection. In 2002, 2003 and 2004 it was roughly \$125 million.⁴⁹ This amount is consistent with amount of rural rate assistance allocated in the mid to late 1990s.⁵⁰ Later amendments held the amount at this level in 2004, 2005, and in any subsequent year.⁵¹

There is little or no information in the public domain about the policy objectives of the Ministry of Energy's RRRP program although the Ministry did make the following statement in the spring of 2016: "This rural and remote rate protection (RRRP) helps to ensure electricity rates for consumers in these rural and remote areas *are similar* (my emphasis) to those of other regions of the province."⁵²

However, the amount of rural rate protection did not equalize or come close to equalizing the rural-urban rate gap which has continued to widen during the past 10 years. The discount remained virtually unchanged for close to two decades. To illustrate, in 1999 the monthly RRRP credit was \$28.50.⁵³ In 2010, more than a decade later, it was still \$28.50. It remained at this amount until 2015 when it was increased slightly to \$31.50 per month.⁵⁴ The credit amounts are listed in Table 1.1 and 1.3 in Appendix One.

While stakeholders like the Ontario Federation of Agriculture have advocated for increased funding for rural rate protection for several years, until recently, there seemed little appetite to amend the rural rate protection rebate. Back in 2012, Hydro One stated that it was "unaware of any intent to change the regulated \$127 M amount available to fund rural rate protection."⁵⁵

⁴⁹ See section 3(2) of O.Reg 442/01, made November 28, 2001, filed on November 30, 2001.

⁵⁰ This amount is consistent with amount of rural rate assistance calculated by Ontario Hydro staff in the mid to later 1990s. See Bruce Bacon, *supra* note 25 at 10; Confirmed via personal communication with former Ontario Hydro employee and utility consultant, Bruce Bacon, August, 2016.

⁵¹ The current funding for low-density (R2) customers under Reg. 442/01 was \$125.4 million in 2016. See Hydro One Networks Inc., Distribution 2015-2017 Rates Application -- 2017 Draft Rate Order, filed October 7, 2016. [EB-2016-0081], Attachment 1 at 5. See also O.Reg 442/01: Rural or Remote Electricity Rate Protection as later amended by O.Reg. 383/04. Subsequent amendments to the regulation were reviewed to confirm that this amount did not change from 2005-2016.

⁵² Ministry of Energy, Regulation Proposal Notice, Proposed Amendment to Ontario Regulation 442/01 (Rural or Remote Electricity Rate Protection), Environmental Bill of Rights Registry Number: 012-6508, February 10, 2016

⁵³ See OEB, Rate Order - Hydro One Services Company, RP -1998-0001, March 15, 1999 at 4.

⁵⁴ See OEB, Decisions and Rate Orders (Hydro One Network Inc.): April 29, 2010 (EB File No. 2009-0096) at para. 1.5; December 20, 2012 (EB File No. 2012-0136) at para 1.5; December 19, 2012 (EB File No. 2013-0141, Appendix A at 3; April 23, 2015 (EB File No. 2013-0416), Schedule A, at 2; January 14, 2016 (EB File No. 2015-0079), Schedule A, at 3. The OEB calculates the amount of the credit for R2 customers pursuant to s. 79 of the *Ontario Energy Board Act*. It is likely that the monthly rate increased slightly as a result of a decrease in the number of R2 rural customers.

⁵⁵ OEB, Hydro One Networks Inc. rate application), EB File No. 2012-0136 Interrogatory #34 (OEB staff) List 1, Issue 13, Filed October 11, 2012, Exhibit I, Tab 13, Schedule 1.01, Staff 34, 1 of 1.

As a consequence, in 2016, the most costly electricity bills in Canada or likely anywhere else in North America were being paid by Hydro One rural low-density (R2) customers.⁵⁶ Repercussions for these Hydro One customers were described by Peter Eamon, the warden of Renfrew County and the chair of the Eastern Ontario Warden’s caucus in August 2016:

...the reality is that rural customers are shouldering a disproportionate burden compared to their urban counterparts. High energy costs force families to choose between electricity bills and other basic necessities and services, posting a growing threat of ‘energy poverty’ across our region and the province.⁵⁷

This next section of the paper explores questions of energy affordability and energy poverty in detail, with particular attention to Hydro One rural customers. It also evaluates the effectiveness of the Ontario Electricity Support Program as well as additional measures announced by the government in its September 2016 Speech from the Throne.

⁵⁶ This is due to the higher distribution charges paid by these customers according to energy consultant Tom Adams. See Jacques Bourbeau, “Rural Ontarians left in the dark as electricity bills skyrocket,” Global News (online), updated July 12, 2016. Various utilities provide comparative rates in different jurisdictions (NB, Quebec, Manitoba). It appears that Hydro One low-density rural customers pay more than residential customers in the Maritimes, and almost all jurisdictions in the U.S. aside from some select cities and Hawaii (New York, San Francisco and Boston). See Hydro Quebec, *Comparison of Electricity Prices in Major North American Cities: Rates in Effect, April 1, 2016* (Quebec: author, 2016; U.S. Energy Information Administration – *Electric Power Monthly with Data for September 2016*, (Washington: author, 2016).

⁵⁷ As recounted by MPP Todd Smith in the Ontario Legislature. See Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 41st Parl., 2nd Sess., 15 September 2016 (Todd Smith).

2. ENERGY POVERTY AND RURAL HYDRO ONE CUSTOMERS

Energy services such as electricity are recognized as an essential need under international human rights law. The right of access to energy is a key underpinning of the right to an adequate standard of living and the right to adequate housing, among other human rights. Questions of affordability and equity are key concerns under international human rights law. As an essential service tied to the right to housing, electricity must be accessible and affordable to everyone without discrimination.⁵⁸ This section of the paper explores questions of energy affordability and energy poverty generally. This is followed by a specific discussion about energy affordability and Hydro One rural low-density (R2) customers.

2.1 Energy and affordability: the energy poverty dynamic

Electricity costs are part of the bundle of expenses that fall under the rubric of housing/shelter costs. The role of utility bills as part of housing/shelter costs is often overlooked. Although definitions of housing “affordability” includes rent or a mortgage and utilities, people don’t usually think of the importance of utility bills on a household’s budget.⁵⁹ Various jurisdictions have set an “affordable/unaffordable” threshold for household shelter costs. In Canada, housing-related costs including utilities should not consume more than 30% of household income. If costs exceed this threshold, a household is experiencing an excessive shelter burden.⁶⁰

Separating energy costs from other shelter costs, provides a separate affordability benchmark for energy. According to U.S. energy poverty expert Roger Colton, energy costs should account for no more than 20% of overall shelter costs – this equates to roughly 6 – 8% of household income at a maximum.⁶¹ If a household’s spending on energy is above this threshold, that household is experiencing energy poverty. This means that it is faced with a disproportionate or excessive energy burden -- its energy costs are essentially “unaffordable” relative to income.

⁵⁸ The substance of these rights and Canada’s obligations under various binding international human rights instruments are discussed in detail in Section 3 of this paper.

⁵⁹ U.S. Department of Housing and Urban Development (HUD), Energy Desk Book for HUD Programs at 8 (this is an online document (no date).

⁶⁰ Canada Mortgage and Housing Corporation (online), What is Core-housing Need?, March 2016. See Special Rapporteur on the Right to Adequate Housing (Miloon Kothari), Report of the Special Rapporteur, (Mission to Canada, 2007), UNHRCOR, 10th Sess., UN doc. A/HRC/107/Add.3, 17 February 2009 at 12

⁶¹ See Roger Colton, A Ratepayer Funded Home Energy Affordability Program for Low-Income Households: A Universal Service Program for Ontario’s Energy Utilities, submission to the Ontario Energy Board on behalf of the Low-Income Energy Network, OEB File No. EB-2005-0520, Exhibit K15.1, April 2006 at 5. [Colton]

A household's energy burden can be estimated by considering how much a household is spending on energy as a percentage of household income: $\text{energy expenditures} / \text{household income} \times 100\% = \text{energy burden}$.⁶²

Energy expenditures include the cost of maintaining an adequate temperature inside a home as well as other normal energy costs for such things as lighting, cooking and refrigeration, hot water, communications connectivity,⁶³ and in rural areas, pumping water.⁶⁴

The Low-Income Energy Network in Ontario advocates for the six - eight percent threshold, especially for low-income households.⁶⁵ If energy expenditures exceed this threshold, a household is considered to be experiencing energy poverty.⁶⁶ The higher the proportion of household income required for energy expenditures over the benchmark the more significant the degree of energy poverty. Figure 1 illustrates this energy poverty continuum with 6 percent as the threshold.

Energy poverty (otherwise known as “energy insecurity”) is not a simple phenomenon. It is linked to general poverty and is the result of a number of underlying conditions, including issues related to health, disability, and low incomes as well as the type of heating system in the household and the quality and energy performance of the housing stock.⁶⁷ Low-income households are most at risk of energy poverty. Increasing energy costs put particular pressure on low-income families who already have limited means to cover shelter and other household costs.⁶⁸ They spend a greater share of their

⁶² Senator Lisa Murkowski and Senator Tim Scott, *Plenty at Stake: Indicators of American Energy Insecurity: An Energy 20/20 White Paper*, 113th Congress, September 2014. 2014 at 19 [Murkowski & Scott]. One has to consider the entire energy mix required for a family to heat and cool and otherwise power a home. Some households may use more than one form of energy in addition to electricity (e.g. gas if available, wood, oil, etc.)

⁶³Ryan Walker et al, “Fuel Poverty in Northern Ireland: Humanizing the plight of vulnerable households,” (2014) 4 *Energy Research and Social Science* 89 at 89-90. [Walker et al].

⁶⁴Adrian J. Bradbrook & Judith G. Gardam, “Placing Access to Energy Services within a Human Rights Framework,” (2006) 28 *Hum Rts Q* 389 – 414 at 393 [Bradbrook & Gardam].

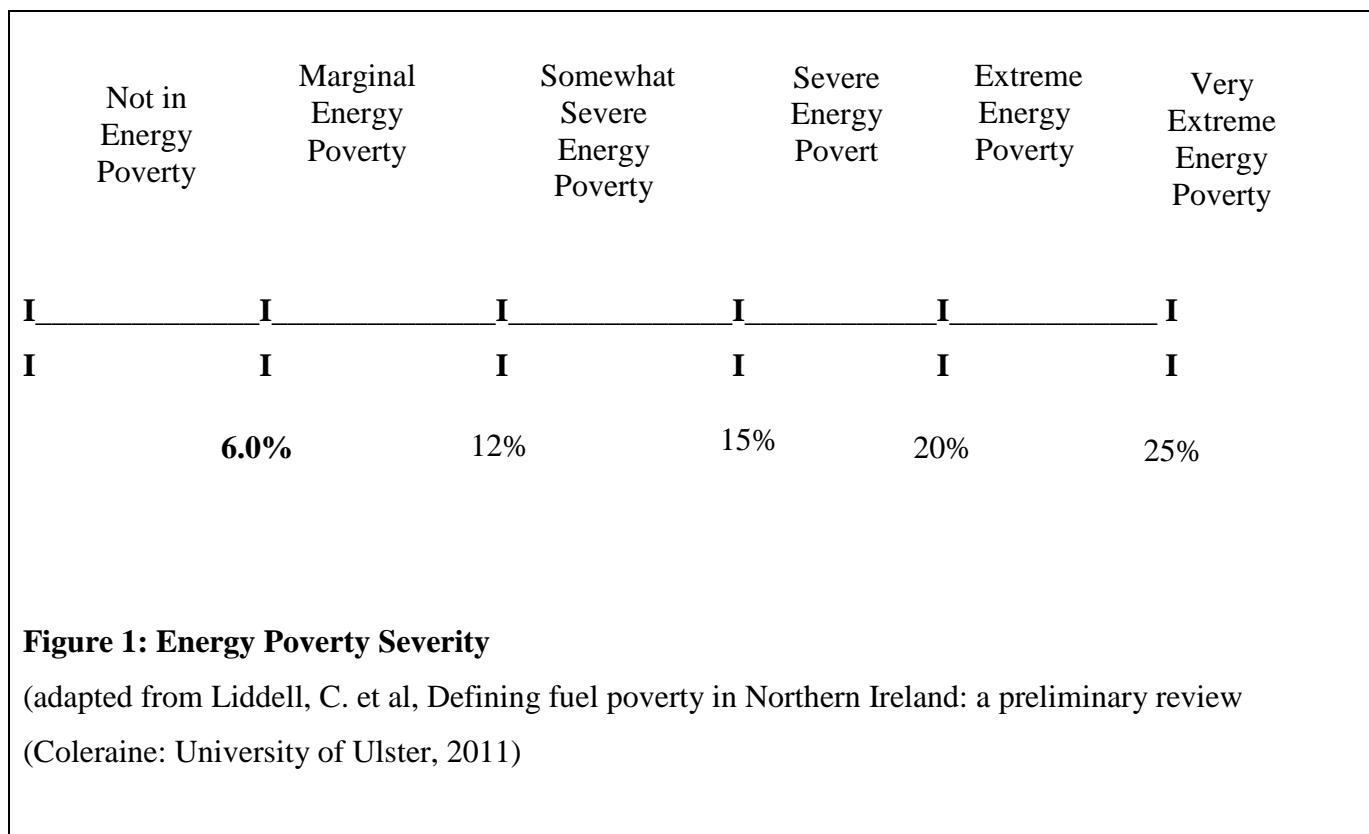
⁶⁵See Low-Income Energy Network, *Working to End Energy Poverty in Ontario: A Tool Kit* (no date) at 1.

⁶⁶The six percent benchmark is considered to be an appropriate benchmark for the purposes of this paper. It should be noted that this paper is considering the impact of electricity bills only and does not consider costs associated with other sources of energy that might be part of a household's energy mix. Any findings of significant energy poverty stemming from electricity bills only should therefore be a significant cause for concern. In the U.K., a 10 percent benchmark was in place for several years. It is no longer an official benchmark in the U.K. See Walker et al, *supra* note 63 at 89-90. Colton suggests that the higher threshold of 10% is too high. He maintains that “affordability” concerns manifest at a much lower percentage of income burden -- Affordability concerns, involving household budget trade-offs and payment troubles less intense than the loss of service appear to be triggered at the 6% to 8% percentage of income burden levels. See Colton, *supra* note 61 at 5.

⁶⁷European Union: European Parliament, *European Parliament Resolution of 14 April 2016 on meeting the antipoverty target in light of increasing household costs*, 14 April 2016, P8_TA(2016) 0136 at 4.

⁶⁸ Murkowski & Scott, *supra* note 62 at 1; Philippa Howden-Chapman et al, “Tackling cold housing and fuel poverty in New Zealand: A review of policies, research and health impacts,” (2012) 49 *Energy Policy* 134 – 142 at 135. [Howden-Chapman et al]. As noted by the Marc Lee and Jason Owen, “A doubling of electricity prices would have a substantial and meaningful impact on the livelihoods of low-income households, but would be less noticeable for the highest-income households. See M. Lee & J. Owen et al, *Fight energy poverty in the transition to zero-emission housing: a framework for BC*, (Vancouver:

income on energy compared to higher income households.⁶⁹ This is borne out by a 2005 study that concluded that Ontario households in the lowest income quintile spend 12 percent of their income on average on utilities.⁷⁰ On average, households in Ontario today spend a relatively modest proportion of their income on energy -- roughly 2.6 percent.⁷¹



The literature suggests that households that are experiencing energy poverty make adjustments to keep the lights on and avoid disconnection – by reducing consumption, making trade-offs, and sacrificing spending in other areas. This can involve choosing between rent and utility payments,

Canadian Centre for Policy Alternatives, 2011) at 12 [M. Lee & J. Owen]. The authors also point out that higher-income families have a greater ability to invest in upgrades that will reduce energy consumption and save them money (at 12).

⁶⁹Phillip O’Neill, Housing Affordability Literature Review and Affordable Housing Program Audit (Sydney, AU: Urban Research Centre, University of Western Sydney, 2008), at 7

⁷⁰Guelph & Wellington Task Force on Poverty Elimination, Energy Poverty Research Profile, 2011 at 1 citing Canadian Housing for Renewal Association, “Affordable and Efficient: Towards a national energy efficiency strategy for low-income Canadians,” (2005).

⁷¹This included spending on energy sources used at home, including electricity, natural gas, and other heating fuels. See K. Green, T. Jackson et al, Energy costs and Canadian Households: How Much Are We Spending?, (Montreal: Fraser Institute, 2016) at 2-3.

foregoing expenditures on food, clothing and other necessities, as well as other strategies such as living with reduced indoor temperatures (or in the summer, higher indoor temperatures), turning down the hot water heater; no longer using parts of a residence, taking on debt, and spending savings.⁷²

Budget pressures caused by an excessive energy burden can cause mental stress and increased risk of food insecurity. Other effects documented by researchers include decreased educational achievement and reduced productivity.⁷³ Health impacts have received the most attention, particularly those due to reduced indoor temperatures during the winter. Energy poverty is linked to excess winter mortality and excess winter hospitalizations.⁷⁴ Economizing by reducing indoor temperature to below sub-optimum levels⁷⁵ can increase dampness in a dwelling and lead to the growth of moulds, viruses and bacteria. Chronic cold temperatures cause or exacerbate cardiovascular and respiratory illness and increase the risk of falls and injuries, particularly in vulnerable populations like the elderly. Other health impacts have been documented. Research suggests that this group as well as others who spend the bulk of their day at home are more vulnerable to the effects of cold temperatures. They include those suffering from ill-health, persons with disabilities and families with young children.⁷⁶ Finally, turning

⁷² Murkowski & Scott, *supra* note 62 at 19; Howden-Chapman et al state that households are faced with a household expenditure trade-off, essentially “heat or eat?” See Howden-Chapman et al, *supra* note 68 at 135. See C. Liddell et al, Defining fuel poverty in Northern Ireland: a preliminary review (Coleraine: University of Ulster, 2011) at 58-59, 65. See also J. Bhattacharya, T. Deleire, “Heat or eat? Cold-weather shocks and nutrition in poor American families,” (2003) 93 *American Journal of Public Health* 1149-1154. See also P.H. Casey et al, “Heat or eat: The low income home energy assistance program and nutritional and health risks among children less than 3 years of age,” (2006) 118 *Paediatrics* 1293-1302.

⁷³ Murkowski & Scott, *supra* note 62 at 4; See also C. Liddell and C. Morris, “Fuel poverty and human health: a review of recent evidence,” (2010) 38:6 *Energy Policy* 2987 at 2992-2993, 2996.

⁷⁴ P. Howden-Chapman et al, *supra* note 68 at 136; Liddell C. & C. Morris “Fuel poverty and human health: A review of recent evidence,” (2010) 38:6 *Energy Policy* 2987 at 2987-2988. “Excess winter deaths” are those deaths which occur in the wintertime in numbers above and beyond those that occur in other seasons of the year. See World Health Organization, *ibid* at 21. See also other sources at note 76 below. In Europe, “excess winter deaths” attributable to cold temperatures in a home are a pervasive problem. 12% of EU citizens were unable to keep their home adequately warm in 2014. See European Parliament, *European Parliament Resolution of 14 April 2016 on meeting the antipoverty target in light of increasing household costs*, 14 April 2016, P8_TA(2016)0136 at 4.

⁷⁵ According to the World Health Organization (WHO) safe indoor temperatures are in the range of 18 to 22 degrees Celsius (depending on room function). See World Health Organization, Regional Office for Europe, “Housing, energy and thermal comfort: A review of 10 countries within the WHO European Region” (Denmark: author, 2007) at 9.

⁷⁶ Households containing seniors are among the most vulnerable to health impacts as well as those with children and long-term sick and disabled people. While early research into this topic focussed on excess winter mortality, recent studies have begun to examine the chronic and cumulative impacts that might be associated with living in cold conditions. These include an increased risk of illness such influenza, pneumonia, asthma, and arthritis, as well as more accidents at home. Various sources that discuss excess winter mortality as well as non-catastrophic, cumulative health impacts include: C. Liddell & C. Morris “Fuel poverty and human health: A review of recent evidence,” (2010) 38:6 *Energy Policy* 2987 at 2987- 2988, 2991-2992, 2996; Howden-Chapman et al, *supra* note 68 at 136-137; C. Liddell et al, Defining fuel poverty in Northern Ireland: a preliminary review (Coleraine: University of Ulster, 2011) at 20, 58-59. See also Great Britain: Department of Energy and Climate Change, *Fuel Poverty: a framework for future action* (London: author, 2013) at 19-20. A recent study found that women over 70 were at a higher risk of accidentally falling after spending only 45 minutes in a chilly room (15 Celsius). See Ulrich Lindemann et al, “Effect of cold indoor environment on physical performance of older women living in the

down the thermostat on the hot water tank has been found to lead to an increased risk of Legionnaires Disease.⁷⁷

Unaffordable energy can lead to critical housing stress, housing insecurity and vulnerability.⁷⁸ It can mean frequent moves and relocations.⁷⁹ Housing becomes even more precarious when electricity is disconnected, particularly in rural areas.

2.2 Particular vulnerabilities of rural households

While it is beyond the scope of this paper to provide a comprehensive review of the characteristics of rural households that could be important to understanding energy poverty and any particular vulnerabilities that may magnify or increase the extent and impacts of energy poverty on these households, the following discussion provides a brief analysis. Very little comprehensive and up-to-date research and information on rural Ontario or rural Canada generally are available in the current literature.

Hydro One rural customers have a higher rate of electricity consumption compared to most other customers in Ontario. Housing in rural areas is generally older and has poor energy efficiency.⁸⁰

community,” (2014) 43 *Age and Ageing* 571-575 at 572-574. Studies that relate cold homes and health effects have been largely based in the United Kingdom, Ireland and New Zealand. See Janet Rudge, “Indoor cold and mortality,” in M. Braubach, M., D.E. Jacobs, D.E. & D. Ormandy, D., eds, *Environmental burden of disease associated with inadequate housing: a method guide to the quantification of health impacts of selected housing risks in the WHO European Region* (Copenhagen, World Health Organization, Regional Office for Europe, 2011) 81 at 91-96. The health effects of colder indoor ambient temperatures have been less well-studied in Canada. A recent study in Ontario found that cold weather contributed to excess deaths in the province. It concluded that further research was required to define high-risk groups. According to the study authors, those most vulnerable are likely the homeless and people with inadequately heated housing. See Hong Chen & Jun Wang, “Assessment of the effect of cold and hot temperatures on mortality in Ontario, Canada: a population-based study,” (2016) 4:1 *Can Med Assoc Journal Open*, E-48 - E-58 at E-48. The health impacts associated with high indoor ambient temperatures are also relevant to the issue of electricity consumption and energy poverty. However, they are not discussed in any detail in this paper.

⁷⁷ United Way of Bruce Grey, Fact Sheet, *Energy Savings and Hot Water Tanks: how to safely save energy costs* (November 2016).

⁷⁸ Energy poverty can cause a household to be “precariously housed,” which some regard as a form of homelessness. Various housing advocates and researchers emphasize that homelessness exists on a spectrum with housing stress (spending on shelter exceeding 30% of household income) at one end of the spectrum and absolute homelessness at the other. See Daniel Hiebert, Silvia D’Addario et al, *The Profile of Absolute and Relative Homelessness Among Immigrants, Refugee Claimants in the GRVD: Final Report*, Mosaic, 2005 at 28 & 35. See also Paul Rollinson, “Homelessness in Rural America,” in D. Marcouiller et al, eds, *Rural Housing, Ex-urbanization and Amenity-driven Development* (Burlington, VT: Ashgate, 2011) 223-236 at 228.

⁷⁹ Markowski & Scott, *supra* note 62 at 4.

⁸⁰ David Bruce, *Housing Needs of Low-income People Living in Rural Areas* (Ottawa, Canada Mortgage and Housing Corporation, 2003) at ii – v [Bruce]

Energy choices are more limited in rural areas in Ontario and there is continued reliance on electricity for space heating and water heating. Reliable data on the number of rural households that rely on electricity as a primary or supplementary heat source are not available. More data is needed on the energy mix for rural Ontarians in order to gain a better understanding of its role in exacerbating rural energy poverty.⁸¹ A more detailed discussion of this issue is provided in Appendix Two.

2.2.1 Socio-economic conditions and trends

There are various socio-economic factors that suggest that energy poverty will cut more deeply and more broadly in rural Ontario than in urban centres.⁸² These include demographic trends, lower employment and earnings compared to urban areas, a high prevalence of low-income households in certain zones and higher rates of dependency generally.⁸³

With regard to demographic trends, rural Ontario's population is declining and aging. Changes from 2001 to 2011 are fairly dramatic. While the urban population increased by just over 15%, the rural and small town population declined by 7.3%. There has been considerable "out-migration" of young and working age people. Seniors are more prevalent in rural Ontario. The share of seniors in rural Ontario is 19.3 percent compared to 13.6 percent in urban Ontario.

Labour participation rates are lower in rural Ontario and there are higher rates of unemployment. The average participation rate is highest in urban areas and declines as the degree of rurality rises. The difference is most pronounced in remote areas of the province. There have been no upward trends in job growth in rural Ontario for at least a decade. In August 2015, employment had declined to the lowest level since December 2002. The percentage of the population having employment income declines as one moves further from dense population centres (the percentage of individuals aged 15 to 64 that is

⁸¹ Statistics Canada and Natural Resources Canada have compiled some recent data on home heating practices in Ontario but it is not segregated by region or by rural or urban areas. There are also issues with the reliability of the data. See Natural Resources Canada, *Survey of Household Energy Use: 2011 - Detailed Statistical Report* (Ottawa, author, 2014).

⁸² This is not to suggest that energy poverty is restricted to rural areas.

⁸³ The main sources for this section of the paper are the following: Bakhtiar Moazzami, *Strengthening Rural Canada: Fewer and Older: The Coming Demographic Crisis in Rural Ontario* (Strengthening Rural Canada, Essential Skills Canada, 2014) at 1-5, 14-15, 18-20, 45-46 and the following publications of the Rural Ontario Institute: Fact Sheet: Non-metro incidence of low income, Focus on Rural Ontario, Vol. 3, No. 17, 2015; Fact Sheet: Focus on Rural Ontario: Non-metro income: Levels and trends, Focus on Rural Ontario, Vol.3, No. 16, 2015; Fact Sheet: Non-metro employment trends, Focus on Rural Ontario, Vol 3, No. 6, 2015; Fact Sheet: Non-metro low income gap, Focus on Rural Ontario, Vol 3, No. 18, 2015. See also Bruce, *supra* note 80, in particular page 2. Additional sources are also cited below. "Dependency" refers to benefits dependency.

employed in rural areas ranges from 81.5 % (in rural areas with a strong link to population centres) down to 70.4% in remote areas).

The difference in earned income between urban and rural areas of Ontario is also worth noting. The average annual earnings in urban areas equaled \$41,697 which is much higher than average earnings in rural areas which range from \$39,200 to \$27,437. They decline as the degree of rurality rises. These trends appear to be consistent with historical rural/urban trends across Canada. Given the above, it is not surprising that the incidence of low income households is higher in rural areas. The share of the rural population that is residing in a family unit with income below the Low-Income Measure was 14% in 2013.

The percentage of low-income incidence is over 20% in certain rural regions, including northern Hastings County. In Tudor and Cashel Township in Hastings County, 39 percent of households are low-income.⁸⁴ The lowest median income districts in Ontario are found in rural areas and some city centres – the highest median income districts are on the fringe of urban Census Metropolitan Areas.⁸⁵

The rate of dependency in rural areas is also higher. It ranges from 9.5% to as high as 26%. The rate rises as the degree of rurality increases. The rate of 26% is for remote areas in Ontario (this is approximately 2.8 times higher than the rate of dependency in urban areas.

A CMHC study on the housing needs of low-income people in rural areas attempted to identify the “low-income universe” in rural areas.⁸⁶ While there were some differences among different kinds of rural communities, the following were consistently found among almost all different types of rural communities: working poor families, single parent households, single persons, and seniors. A large proportion of Aboriginal households, if present, are also low-income.⁸⁷ There are hundreds of First Nations communities spread out through rural and remote parts of Ontario. The vast majority of these

⁸⁴ The Low-Income Measure refers to the Low-Income Measure – After Tax (LIM-AT). Income statistics broken down by census subdivision are compiled as part of the 2011 National Household Survey of Statistics Canada. See Statistics Canada, 2011 National Household Survey: Data tables; See also Statistics Canada, Geography Division, 2011 - Ontario Region – Percentage of the population below after-tax low-income measure in 2010 by 2011 census subdivision (CSD), 2011 National Household Survey, online.

⁸⁵ Based on 2001 census data. See Ivan P. Fellegi, Population and socio-economic trends in Ontario, Statistics Canada, February 17th, 2007 (power point presentation) at slide 15, online: Citizens Assembly.gov.on.ca

⁸⁶ The study involved a literature review, a statistical review and 12 community case studies, three of which were Ontario communities. See Bruce, *supra* note 80 at 7-8.

⁸⁷ Bruce, *supra* note 80 at i, 15-19.

communities would be served by Hydro One. The income gap between Aboriginal peoples and the rest of Canadians is well documented.⁸⁸

2.2.2 Households that are vulnerable to energy poverty – what the research tells us

In-depth energy poverty research has been conducted on some jurisdictions. Examples include the U.K. and the state of Nebraska where energy poverty has been the focus of substantive research over a period of several years. Energy poverty assessments provide a snapshot of the kinds of households that appear to be the most vulnerable to energy poverty. Factors include household income as well as the make-up of the household unit and the type and age of a dwelling. There are some similar trends from this research. These include:

- A correlation between lower income and the extent of energy poverty (affordability gap)
- Single, one-person households having higher odds of being energy poor
- Households living in older properties are more likely to be energy poor than those who live in more recently built dwellings⁸⁹

In the U.K., the average annual energy poverty gap in monetary terms is close to twice as high for rural areas compared to urban areas.⁹⁰

2.3 The situation in rural Ontario

Stories that have been recounted in the media during the summer and fall of 2016 suggest that many rural customers of Hydro One are struggling to pay mounting electricity bills. Several have fallen into arrears and have faced disconnection. They include single person households, often women who are elderly, single-parent households, householders on disability benefits or pensions, as well as retired couples on a fixed income, and families with young children, among others. Bills of more than \$500 a

⁸⁸ Ministry of Indigenous Relations and Reconciliation, First Nations map, accessed Nov. 2, 2016; See also Daniel Wilson and David Macdonald, *The Income Gap Between Aboriginal Peoples and the Rest of Canada* (Ottawa: Canadian Centre for Policy Alternatives, 2010) at 3, 6-8.

⁸⁹ Center for Public Affairs Research, University of Nebraska at Omaha, *Nebraska Energy Burden Study 2016 Update*, April 14, 2016 (power point) at slide 17. See Great Britain: Department of Energy and Climate Change, *Fuel Poverty: a Framework for Future Action (Analytical Annex)*, 2013 at 16. See Great Britain: Department of Energy and Climate Change, *Fuel Poverty: Methodology Handbook*, June 2016 (updated September 2016), at 10

⁹⁰ As reported in documents accompanying the 2013 U.K. Fuel Poverty framework for action, the gap was 588 British pounds in rural areas compared with 361 British pounds in urban areas. See Great Britain: Department of Energy and Climate Change, *Fuel Poverty: a Framework for Future Action*, 2013 – Analytical Annex, 2013 at 10.

month for single person households do not seem out of the ordinary.⁹¹ Several customers who rely on electric heat spoke of bills ranging from \$600 to \$1,000 a month.⁹² Those that use electricity as supplementary heat in the winter still face monthly bills of \$350. High bills during the winter months have forced families to switch off their electric baseboards and switch to wood heat. This not an option for some customers, especially those who are elderly, ill, or are challenged with disabilities. One family in Parry Sound with young children shut off their electric baseboards and relocated to the basement to curtail their electricity consumption. They face mounting arrears and worry that they will lose their water if their electricity is cut off. There are these and other examples of extreme energy poverty, many involving customers who are elderly, disabled or caring for a sick family member. Several are sacrificing their food budget to pay their electricity bill.⁹³ The United Way of Bruce Grey has been working to assist a single woman who lives in a modest bungalow on the Bruce Peninsula. Her monthly income under the Ontario Disability Support Program is \$1200. Her monthly electricity bill from Hydro One is close to \$500 a month, roughly 40% of her income.⁹⁴ A low-income senior in her 70s had to seek emergency financial assistance last year. Her bill was \$800 and she was threatened with disconnection.⁹⁵

These anecdotal accounts help to paint a picture of the human dimension of energy poverty for rural customers of Hydro One. Absent any specific detailed research on this topic, an energy poverty evaluation was conducted for generic low-income households that are low-density (R2) customers of Hydro One. Newly-published data on customer arrears were also reviewed. The results of these analyses are discussed below.

⁹¹ A semi-retired nurse in her 70s lives in a modest home with a propane stove and water heater. She has an electric heat pump to heat her home. During January and February of 2016, her electricity bill was close to \$500.00. Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 41st Parl., 2nd Sess., Standing Committee on Justice Policy (Ontario Rebate for Consumer's Act), 3 October 2016 at at JP-14 to JP-15 (Marguerite Thomas).

⁹² Brian Hill, "Hydro horror stories: tales from rural Ontario," Global News, July 16, 2016. This story includes emails that were sent in by Hydro One rural customers, online at: <http://globalnews.ca/news/2815666/hydro-horror-stories-ales-from-rural-ontario/> [Brian Hill]

⁹³ Brian Hill, *ibid*; See also, Jacques Bourbeau, "Rural Ontarians left in the dark as electricity bills skyrocket," Global News, updated July 12, 2016; Laurie Monsebratten, "Pensioner Left in the Dark after Hydro Pulls the Plug," *The Toronto Star*, July 27, 2016, CBC Radio (The Current), "People have to choose between heating and eating: Rising hydro costs hit Ontarians," September 1, 2016 (full transcript).

⁹⁴ Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 41st Parl., 2nd Sess., Standing Committee on Justice Policy (Ontario Rebate for Consumer's Act), 3 October 2016 at JP-25 (Francesca Dobbryn).

⁹⁵ *Ibid* at JP-27 to JP-28 (Lynda Thomas)

2.3.1 Arrears and Disconnections

Arrears and disconnection data for the years 2013 – 2015 was recently published by the Ontario Energy Board. Data for the period prior to 2012 is not available.⁹⁶ Overall, the number of Hydro One customers in arrears has risen dramatically in the past three years as has the average amount of arrears owed per customer. Some of the key observations that can be drawn from this data are presented below.

It is important to note that Hydro One has 982,954⁹⁷ year-round residential customers, roughly 22% of all residential customers in Ontario. The other 78 percent are customers of the other utilities. The arrears data indicates that most Ontario utilities had some residential customers in arrears at the year-end of 2013, 2014, and 2015.⁹⁸ However, close to one-quarter of Hydro One’s residential customers -- 225,952 residential households – were in arrears at the end of 2015. This represents 40 percent of all residential customers in arrears province-wide.

With regard to low-income customers of Hydro One, the amount of their bills exceeds their ability to pay by an increasing margin. The average amount of arrears owed by low-income customers at the end of 2013 was \$664.58. This amount increased by 96 % to over \$1300 in 2015. Difficulties with bill payment extend beyond low-income customers. The OEB estimated that there are 122,898 potential low-income households served by Hydro One.⁹⁹ The number of households in arrears at the end of 2015 was close to double that figure. This suggests that thousands of non low-income customers of Hydro One could be facing energy poverty in addition to low-income customers.

The arrears data that is publicly available is not broken down by customer class. Given the significant difference in the distribution charges paid by Hydro One’s rural customers, segregated data would inform our understanding of the impact of the differential rates on Hydro One residential customers. When the Board was asked to provide this kind of breakdown, it confirmed that it does not

⁹⁶ Ontario Energy Board, Background: Consumer protection, utility data and low-income support programs, August 17, 2016 at 2. Arrears and disconnection data for all Ontario electricity distributors was compiled in a table prepared by the Ontario Energy Board, see Ontario Energy Board, “Data Reported by Electricity Distributors for All Residential Households,” 216. See also Ontario Energy Board, Electricity Reporting and Record Keeping Requirements. The most up-to-date version of the requirements are dated May 3, 2016 – May 3, 2016 version accessed on Nov 3, 2016.

⁹⁷ Totals do not include Hydro One’s seasonal residential customers.

⁹⁸ There are roughly 70 electricity distributors. They vary widely in terms of the number of customers and the percentage of customers in arrears. In 2015 it was as low as one percent for Algoma Power Inc., less than one percent for Newmarket-Tay Power Distribution Ltd. Kitchener-Wilmott Hydro had 7% of customers in arrears, while Kingston Hydro had 7.5%. Power Stream was higher with a total of 17% in arrears.

⁹⁹ The data does not represent all low-income Hydro One customers who may be in arrears. “Eligible low-income customers are those who have applied for and found to be eligible for either of the OEB’s assistance programs (LEAP or OESP). According to Hydro One, they also included households that had submitted documentation to indicate that they were receiving social benefits – email to author, Hydro One Networks Inc., November 7, 2016. Ontario Energy Board, Presentation to the Financial Assistance Working Group, Ontario Electricity Support Program, September 3, 2015 (power point deck).

ask Hydro One to segregate its data by customer class.¹⁰⁰ Furthermore, Hydro One declined to provide this information when requested.¹⁰¹

However, some regional data from 2016 has been collected by the United Way of Bruce Grey. It shows that Hydro One low-density (R2) customers had significantly higher average arrears than other Hydro One residential customers. The data is presented below. It is important to note that these numbers represent *average* arrears for low-income customers.¹⁰²

For Low-density customers (R2)	- \$1,224.49 (52 customers)
For Medium-density customers (R1)	- \$ 935.92 (65 customers)
For Urban-density customers (UR)	- \$ 707.68. (126 customers)

2.4 Results of an energy poverty analysis for low-income rural customers of Hydro One

Households with incomes somewhat below the Low-Income Measure-After Tax (LIM-AT)¹⁰³ were used for the comparison as well as households receiving benefits under Ontario Works (OW) and the Ontario Disability Support Program (ODSP).¹⁰⁴ Total income for households (one to four persons) were broken down to arrive at a monthly income. From there, the six percent energy affordability benchmark was calculated to determine each household's energy affordability threshold in dollars. The "affordable energy expenditure amount" for each household was then compared against a monthly bill for a Hydro One rural low-density (R2) customer using an estimated consumption value. Data on individual consumption patterns for these Hydro One customers (e.g. single person vs. large family, etc.) is not available.¹⁰⁵ The comparison was performed for a monthly bill as of Nov. 1, 2016 (with the

¹⁰⁰ Email, Ontario Energy Board, OEB FILE No. IRE-2016-0929 - Distributors (RRR) - 2.1.2 - Customer Numbers – Response, August 30, 2016

¹⁰¹ Email, Regulatory Affairs, Hydro One Networks Inc. dated October 26, 2016, Hydro

¹⁰² The United Way serves as an intake agency for two provincial utility assistance programs and also provides direct assistance to households struggling to pay their utility bills. Data (excel spreadsheet) provided by Francesca Dobbyn, Executive Director of the United Way of Bruce Grey. See United Way of Bruce Grey, Selected data on electricity customer arrears for Hydro One Networks Inc. customers for the period January 1, 2016 to September 23, 2016 (finalized and completed Hydro One applicants processed by the United Way of Bruce Grey for Bruce Grey Counties only) – Excel spreadsheet [United Way of Bruce Grey, Selected data on electricity customer arrears (Hydro One), 2016]

¹⁰³ LIM-AT refers to Statistics Canada's Low-Income Measure – After Tax. These low-income thresholds are geared to household size.

¹⁰⁴ The analysis for households receiving Ontario OW and ODSP considered total benefit income.

¹⁰⁵ A monthly customer bill for 1,000 kWh of electricity along with all other charges and HST (including the deduction from the rural rate protection credit of \$31.50) is \$285.52.¹⁰⁵ Testimonials of Hydro One customers indicate that several pay that amount or more, depending on the season. The average monthly consumption of Hydro One customers is higher than for other "typical" households served by other utilities which means higher expenditures as a proportion of household income

monthly RRRP credit in effect at that time. It was also conducted taking the new eight percent rebate and increased RRRP credit amount (which were to take effect on January 1, 2017).¹⁰⁶ Both scenarios include monthly credits that would be available to eligible low-income households under the new Ontario Energy Support Program (OESP). Additional analyses evaluated the degree of energy poverty for low-density (R2) households that rely on electric heat for some or all of their space heating.

The analysis reveals that low-income households that are rural low-density (R2) customers of Hydro One, in particular those receiving OW and the ODSP, were experiencing energy poverty in 2016. The gap was magnified for households that use electricity for some home heating. Households with one or two persons were experiencing the most significant burden, even with the OESP credit. When the government's new measures (effective January 1, 2017) are taken into account, the size of the energy poverty gap is reduced but is not eliminated for most low-income households. The mitigative effects on households using electric heat are marginal. The calculations are presented in two tables in Appendix Three.

and thus a higher energy burden. See detailed discussion of Hydro One rural customer consumption patterns. The analysis uses some variants of a 1,000 kWh bill, taking household size into account.

¹⁰⁶See Office of the Premier, Background: Regulation and Fee Changes Coming Into Force January 1, 2017 (December 20, 2016). See also *Ontario Rebate for Electricity Consumers Act*, S.O. 2016, c 19. With regard to enhanced rural or remote rate protection, see O.Reg 365/16 amending O.Reg 442/01. O.Reg 365/16 was filed on November 18, 2016. Ministry of Energy had posted a proposal on the government's regulatory registry to amend O. Reg. 442/01 to increase the total amount of rate protection available for eligible consumers each year from a maximum of \$127 million to a maximum of \$237 million. The proposal also indicated that the Ministry is "considering options to periodically adjust the maximum amount of rate protection available going forward," but no further details were provided. Ontario's Regulatory Registry 16-ENE007, Posted September 28, 2016. Hydro One forecasted that the additional amount of rate protection for R2 customers will actually be \$27.40 monthly, bringing the total RRRP to \$58.90 (based on an additional \$110 million / 334,551 R2 customers forecast for 2017). Hydro One Networks Distribution 2015-2017 Rate Application – 2017 Draft Rate Order, submitted October 7, 2016, Attachment 1 at 5.

3. THE INTERNATIONAL HUMAN RIGHTS DIMENSIONS OF ENERGY ACCESS

Here in the developed world, we take access to energy services such as electricity for granted. However, nearly 1.3 billion people globally – about four times the population of the United States – do not have access to electricity.¹⁰⁷ Twice as many still rely on “traditional biomass” for cooking and heating. Most live in Sub-Saharan Africa and Asia.¹⁰⁸

Lack of access to electricity and other modern energy services has long been recognized as a serious barrier to development. There are strong arguments for universal access to energy as a means to alleviate poverty and generate progressive improvement in quality of life and living standards. The World Energy Assessment Report (2000) provided an eloquent description of the energy-development connection:

“Energy services are a crucial input to the primary development challenge of providing adequate food, shelter, clothing, water, sanitation, medical care, schooling, and access to information...Energy supports the provision of basic needs such as cooked food, a comfortable living temperature, lighting, the use of appliances, piped water or sewerage, essential healthcare...education, communication and transport. Energy also fuels productive activities including agriculture, manufacture ... Conversely, lack of access to energy contributes to poverty and deprivation and can contribute to economic decline.¹⁰⁹

Access to energy is absent from the Rio Declaration on Environment and Development (1991) and Agenda 21.¹¹⁰ It has often been cited as the “missing Millennium Development Goal” given that energy availability (or lack thereof) was an “essential input” for attainment of most of the Millennium Development Goals including improvements in child and maternal health and access to water and

¹⁰⁷ International Energy Agency, *World Energy Outlook 2012* (Paris: author, 2012); Faith Birol, “Achieving Energy for All Will Not Cost the Earth,” in Antoine Halff et al (eds) *Energy poverty: global challenges and local solutions*,” (Oxford: Oxford University Press, 2015), online via Scholars Portal Books, at 1 [Faith Birol]

¹⁰⁸ Faith Birol, *ibid.*

¹⁰⁹ United Nations Development Programme, *World Energy Assessment: Energy and the Challenge of Sustainability*, 1980 at 44, as cited in Bradbrook & Gardam, *supra* note 64 at 393.

¹¹⁰ Bradbrook & Gardam provide an overview of international developments related to the debate over access to energy issue including developments in international law related to sustainable development. Energy access is not referenced in either the Rio Declaration on Environment and Development or Agenda 21. According to Bradbrook and Gardam, a draft chapter on energy was deleted from the final text of Agenda 21 due to strong opposition from oil-producing nations. See Bradbrook & Gardam, *supra* note 64 at 399-404.

sanitation.¹¹¹ However, momentum toward formal recognition of the need for universal energy access has escalated recently. “Access to affordable, reliable sustainable modern energy for all” is one of the new 2015 global sustainable development goals.¹¹² This far-reaching goal seeks to address inequities in access while driving momentum towards more efficient, clean energy sources.¹¹³

Countries that are not providing their population with critical services, like water and electricity, are arguably in violation of international human rights law as set out in several international and regional human rights agreements. In the Global north, physical access to electricity services is generally not an issue.¹¹⁴ Rather, energy injustice and inequality stems mainly from energy poverty and barriers that arise when energy costs take up a disproportionate amount of household income (i.e. “economic access”).

This section of the paper explores State obligations with regard to the right to adequate housing and affordability of essential services like electricity and examines Canada’s compliance with its international human rights obligations with regard to these human rights entitlements.

3.1 The Right of Access to Energy as a Human Right

While there is no stand-alone human right to energy per se, services like electricity are integral to several rights including the right to an adequate standard of living which incorporates the right to adequate housing, the right to health and even the right to life. In rural areas, access to safe water and sanitation is dependent upon electricity access.

¹¹¹ United Nations Industrial Development Organization, Note by the Secretariat – UNIDO activities in the field of energy and environment,” UNGC.13/18, 12 November 2009 at 3. See International Institute of Applied Energy Analysis, “Chapter 2: Energy Poverty and Development,” in Thomas B. Johansson et al (eds.), *Global Energy Assessment: Towards a Sustainable Future* (Cambridge: Cambridge University Press, 2012) at 153. See also Bradbrook & Gardam, *supra* note 64 at 403-404.

¹¹² See Goal 7 of the United Nations Sustainable Development Goals, 2015. See General Assembly resolution 70/1, *Transforming our world: the 2030 agenda for sustainable development*, UNGA Doc. A/RES/70/1 (October 21, 2015). Target 7.1 under Goal 7 establishes a timeline for achievement of the goal – the year 2030. While the benefits of energy access for all seem self-evident, the societal costs associated with the exploration, production, distribution and consumption of energy, especially carbon-based energy sources, is significant. Greenhouse gas emissions, air pollutants and the environmental and social risks associated with energy projects are just some examples of these costs.

¹¹³ The second aspect of the sustainable energy goal (more efficient and cleaner energy sources) is intended to address the negative impacts of emissions of greenhouse gases and other pollutants from energy production, distribution and consumption. See Sustainable Energy for All, Background, online: <http://www.un.org/millenniumgoals/pdf/SEFA.pdf>

¹¹⁴ It should be noted some communities in North America do not have access to the electricity grid. For example, several members of the Navajo Nation in the United States do not have electricity service. See Alysa Landry, “Not Alone in the Dark: Navajo Nation’s Lack of Electricity Problem, Indian Country Today Media Network, November 2, 2015 at 1-3. A non-polluting and reliable electricity supply is also not available to several remote communities in Northern Canada, including First Nations communities in northern Ontario which depend upon diesel generation for their power needs.

There are various formulations of the right to an adequate standard of living but all focus on the basic necessities of life. Under the *International Covenant on Economic, Social and Cultural Rights*¹¹⁵ (ICESCR) the right of everyone to an adequate standard of living is recognized, “including adequate food, clothing and housing, and to the continuous improvement of living conditions.”¹¹⁶ Under other international instruments, these rights are also accorded to particular vulnerable groups such as children, the disabled and women.¹¹⁷

Rural women are singled out for special protections under the 1979 *Convention on the Elimination of All Forms of Discrimination Against Women* (CEDAW). They have a specific entitlement to electricity, as well as to housing, sanitation and water, as part of their right to adequate living conditions, without discrimination.”¹¹⁸

Under the United Nations Declaration on the Rights of Indigenous Peoples, Indigenous peoples have the right, without discrimination, to the improvement of their economic and social conditions, including, inter alia, housing, sanitation, health and social security.¹¹⁹

3.1.1 The right of access to energy as part of the right to adequate housing

Access to energy is an inherent part of the right to adequate housing. The various requirements for adequate housing are explored here. In 1991, the Committee on Economic, Social and Cultural Rights (CESCR) which monitors State compliance with the ICESCR issued an important General Comment on the right to housing under Article 11 of the Covenant. The Committee underlined that the right to

¹¹⁵ *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, 993 UNTS 3; 6 ILM 368, (entered into force 3 January 1976). [ICESCR]

¹¹⁶ See article 11(1) of the ICESCR. *International Covenant on Economic, Social and Cultural Rights*; the *Universal Declaration of Human Rights*, Article 25(1) provides that “everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services...” *Universal Declaration of Human Rights*, GA Res 217A (III), UNGAOR, 3rd Sess, Supp No 13, UN Doc A/810 (1948) 71

¹¹⁷ See Article 25 of the *Universal Declaration of Human Rights*, GA Res 217A (III), UNGAOR, 3rd Sess, Supp No 13, UN Doc A/810 (1948) 71; See Article 14(2)(h) of the *Convention on the Elimination of All Forms of Discrimination Against Women* 18 December 1979. UNTS vol. 1249, p. 13 (entered into force 3 September 1981) (CEDAW); See Article 24 of the *Convention on the Rights of the Child*, 20 November, 1989, UNTS, vol. 1577, p. 3 (entered into force 2 September 1990); See also Articles 9 and 28 of the *Convention on the Rights of Persons with Disabilities*, 13 December 2006, UNTS 2515 (2006) p. 3 (entered into force on 3 May 2008). Article 28 of the Convention specifies persons with disabilities have a right to an “adequate standard of living for themselves and their families, including adequate food, clothing and housing, and to the continuous improvement of living conditions...”

¹¹⁸ See article 14 of the CEDAW, *supra* note 117.

¹¹⁹ Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities. See Article 21(1) of the *United Nations Declaration on the Rights of Indigenous Peoples*, UNGAOR, 61st Sess., U.N. Doc. A/RES/61/295 (2 October 2007)

housing is not merely having a roof over one's head. "The right to housing should not be interpreted in a narrow or restrictive sense....it should be seen as the right to live somewhere in security, peace and dignity."¹²⁰ Security of tenure is one key requirement. In terms of physical characteristics, a home must be habitable and certain services, materials, facilities and infrastructure must be available. It must also be affordable.¹²¹ These last three requirements involve access to energy and are discussed below.

3.1.1.1 Habitability – a matter of health and quality of life

Living in a home that is structurally unsound, in a state of disrepair, or without adequate warmth in the winter months is a threat to health and well-being. In the Committee's view, inadequate and deficient housing and living conditions are "invariably associated with higher rates of mortality and morbidity."¹²² Housing that is "habitable" has adequate space and protects inhabitants from cold, damp, heat, rain, wind or other threats to health, structural hazards and disease vectors.¹²³ The connections between habitable housing and access to energy for warmth or cooling are evident.

3.1.1.2 Access to essential services, materials, facilities and infrastructure

According to the CESCR, all beneficiaries of the right to adequate housing should have, among other things, sustainable access to safe drinking water, energy for cooking, heating and lighting, sanitation and washing facilities, means of food storage, and refuse disposal. These services, facilities and infrastructure are "essential" for health, security, comfort and nutrition.¹²⁴

In the course of state periodic review, the CESCR has reinforced the notion that access to certain services and infrastructure are essential pre-requisites for adequate housing. Recently the Committee has observed in its Concluding Observations on State reports that housing conditions for Roma populations

¹²⁰ Committee on Economic, Social and Cultural Rights, *The right to adequate housing (art. 11 (1) of the Covenant)*: General Comment 4, UNCESCROR GC 4, 6th Sess., UN Doc E/1992/23 (1991). [CESCR, General Comment No. 4]

¹²¹ According to the CESCR under General Comment No. 4, other key requirements for adequate housing are accessibility, location (convenient location in order to be able to access services, schools and employment) and cultural adequacy. See CESCR, General Comment No 4 at 2-3. This is one of several comments by the CESCR that are relevant to the human rights issue addressed in this paper. Other general comments are referenced below. Although general comments and recommendations of human rights supervisory bodies are not legally binding, the International Court of Justice has recognized that the opinion of a UN human rights treaty body should be given significant weight." See Christine Chinkin, "Addressing violence against women in the Commonwealth within states' obligations under international law," (2014) 40:3 *Commonwealth L Bull* 471 – 501 at 473, referencing the ICJ's decision in *Ahmadou Sadio Diallo (Republic of Guinea) v. Democratic Republic of the Congo* [2010] ICJ Rep, para 66.

¹²² CESCR, General Comment No. 4, *ibid* at para. 8(d)

¹²³ CESCR, General Comment No. 4, *ibid* at para 8(d)

http://tbinternet.ohchr.org/_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=9&DocTypeID=11

¹²⁴ ICESCR, General Comment No. 4, *ibid* at 2.

in various countries across Europe are “substandard” as they lack “basic services” such as electricity, and safe drinking water and sanitation.¹²⁵

The European Committee on Social Rights has also elaborated on the scope of housing entitlements under the *European Social Charter*¹²⁶ in several cases involving Roma families and Travellers. In the 2015 decision of European Roma Rights Centre (ERRC) v. Ireland, the Committee stated:

The right to housing permits the exercise of many other rights – both civil and political as well as economic, social and cultural. It is also of central importance to the family. In order to satisfy Article 16 states must promote the provision of an adequate supply of housing ... and ensure that existing housing be of an adequate standard and include essential services (such as heating and electricity).¹²⁷

UN Special Rapporteurs on the Right to Adequate Housing have also emphasized that housing adequacy requires access to potable water, electricity, and sanitation, all of which are “basic,” “necessary,” or “essential” services.¹²⁸ The current Special Rapporteur, Leilani Farha, has underscored how utilities and services are necessary to ensure the quality and habitability of housing.¹²⁹ According to Farha, as many as one in three households in Latin America and the Caribbean have inadequate housing,

¹²⁵ See for example, Concluding Observations of the CESCR for Greece (2015), Roumania (2014), Serbia (2014) and Slovenia (2014): UN Committee on Economic, Social and Cultural Rights, Concluding observations on the second periodic report of Greece, 27 October 2015, E/C.12/GRC/CO/2 at para. 33; Concluding observations on the second periodic report of Slovenia, 15 December 2015, E/C.12/SVN/CO/2 at para. 21; Concluding observations on the combined third to fifth periodic reports of Roumania, 9 December 2015, E/C.12/ROU/CO/3-5 at para. 18; Concluding observations on the second periodic report of Serbia, 10 July 2014, E/C.12/SRB/CO/2, at para. 31.

¹²⁶ *European Social Charter (revised)*, 03 May 1996, ETS No. 163, (entered into force on 1 July 1999)

¹²⁷ European Committee of Social Rights, *European Roma rights Centre (ERRC) v. Ireland*, Complaint No. 100/2013, 01 December 2015 (merits), at para. 56-57. In that case, the Committee found that Ireland was in violation of Article 16 of the Charter on the grounds of sub-standard accommodation and lack of essential services for Roma and Travellers.

Other previous decisions that underline that essential services like electricity and water are part of the adequate housing standard include *Centre on Housing Rights and Evictions (COHRE) v. Croatia*, Complaint No. 52/2008, 22 June 2010 (merits) at para. 65; *European Roma and Travellers Forum v. France*, Complaint No. 64/2011, 24 January 2012 (merits), at paras. 126-129, 144-145 and *European Roma Rights Centre v. Portugal*, Complaint No. 61/2010, 30 June 2011 at para. 31

¹²⁸ See Special Rapporteur on adequate housing (Miloon Kothari), *Annual Report* (main focus: homelessness), UNCHROR, 61st Sess, Item 10, UN Doc E/CN.4/2005/48, (2005) at para. 48; See also various country mission reports of the Special Rapporteur, Miloon Kothari: *Mission to Cambodia*, Commission on Human Rights, Sixty-second session, E/CN.4/2006/41/Add.3, 21 March 2006 at 47; *Mission to Brazil*, Commission on Human Rights, Sixty-first session, E/CN.4.2005/48/Add. 18 February 2004 at para. 30; *Mission to Mexico, (4-15 March 2002)*, Commission on Human Rights, Fifty-ninth session E/CN.4/2003/5/Add.3, 27 March 2003 at para. 11

¹²⁹ Special Rapporteur on the Right to Adequate Housing (Leilani Farha), *Annual Report (The Right to Adequate Housing)* (Main focus: Preliminary thoughts and priority areas of work), UNGAOR, 69th Sess., U.N. Doc. A/69/274, 7 August 2014 at paras. 16, 21

“meaning housing that is either unsuitable for habitation, built with poor materials or lacks basic services.”¹³⁰

The foregoing confirms that there is a right of physical access to electricity that must be assured by States under international human rights the law. The next section discusses the second dimension of accessibility – economic accessibility.

3.1.1.3 Economic Access

The human rights framework does not rule out tariffs and user contributions for essential services. According to the Special Rapporteur on the human right to safe drinking water and sanitation, Léo Heller, “these services do not have to be available free of charge. The human rights framework recognizes that revenues have to be raised in order to ensure universal access to services.”¹³¹ That said, States must also assure economic accessibility. Electricity services must be affordable. The direct and indirect costs and charges associated with securing electricity and other energy services must be affordable to all and must not compromise or threaten the realization of other rights such as the right to health or education.¹³² Non-discrimination is another key dimension of accessibility for essential services. In the words of the CESCR, services “must be accessible to all, including the most vulnerable or marginalized sections of the population, without discrimination.”¹³³

In a recent report on her visit to Cabo Verde in 2015, Leilani Farha reiterated that the realization of the right to housing depends upon ensuring that costs and charges for housing-related services are economically accessible. While Cabo Verde has made steady progress in ensuring access to services

¹³⁰ Leilani Farha, Statement at the 2nd Latin America and Caribbean Regional Forum on Adequate Housing - “Vivienda para la Vida,” Monterrey, Mexico, May 6 2015 at 2. During a recent visit to India in 2016, the Special Rapporteur observed that replacement housing provided to families who had been evicted from their homes was “uninhabitable.” Besides lacking in access to transportation services, the flats were “in a state of disrepair, lacking water and other basic services. Many of the units, as a result, had been abandoned. See Leilani Farha, End-of-visit press statement, New Delhi, India, 22 April 2016: <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=19861&LangID=E>

¹³¹ Special Rapporteur on the human right to safe drinking water and sanitation (Leo Heller), *Annual Report*, UNOHRC, Thirtieth session, 5 August 2015, A/HRC/30/39 at 4

¹³² Committee on Economic, Social and Cultural Rights, General Comment No. 15 (The Right to Water) UN Doc E/C.12/2002/11 at para. 12 (CESCR, General Comment No. 15]

¹³³ *Ibid* para. 12.

such as electricity and water, “affordability of these services remains an acute problem.” Electricity rates are among the highest in Africa and one-quarter of the population lives well below the poverty line.¹³⁴

International human rights law stipulates that housing-related costs should not jeopardize household access or enjoyment of other basic needs and must be kept to a reasonable proportion of household income.¹³⁵ As discussed in Section 2 of this paper, electricity costs are part of the bundle of expenses borne by a household as part of housing/shelter costs.

Léo Heller calls on States to implement safeguards when setting tariffs to ensure that the cost of access for essential services is affordable and meets the needs of marginalized groups and individuals.¹³⁶ According to Leilani Farha, a human rights perspective calls for specific measures to regulate the costs of shelter-related charges for services like electricity “in line with minimum and average incomes...”¹³⁷ Furthermore, measures and mechanisms must be put in place “to mitigate the impact of high costs in the standard of living on low-income individuals and households (such as with adequate subsidies, lower tariffs,...etc.)”¹³⁸ There are some commentators who argue that a human rights orientation precludes individuals from being disconnected from use of essential minimum amounts of electricity because of inability to pay. According to Stephen Tully, full cost recovery can be balanced against equity consideration through subsidies for low-income consumers.¹³⁹

3.2 Energy underpins several other human rights

Essential services like electricity are necessary for health, security and comfort.¹⁴⁰ Access to energy is tied to basic rights and entitlements that are needed to satisfy or maintain a sufficient,

¹³⁴ Report of the Special Rapporteur on adequate housing (Leilani Farha), *Country report: mission to Cabo Verde*, UNGAOR, 31st Sess., U.N. Doc. A/HRC/31/54/Add.1, 23 December 2015 at paras. 55-57 [Leilani Farha, Cabo Verde]

¹³⁵ CESCR, General Comment No. 4, *supra* note 120 at para. 8(c). As discussed in Section 2 of this paper, electricity costs are part of the bundle of expenses borne by a household as part of housing/shelter costs. Benchmarks for what is considered to be a reasonable proportion of household income for energy costs range from between 6 to 10% of household income.

¹³⁶ Special Rapporteur on the human right to safe drinking water and sanitation (Leo Heller), UNHRCOR, Thirtieth Sess., U.N. Doc. A/HRC/30/39, August 5, 2015 at para. 6

¹³⁷ Leilani Farha, Cabo Verde, *supra* note 134 at para. 56

¹³⁸ [Leilani Farha, Cabo Verde], *ibid* at para. 56. According to Farha, states should also take steps to ensure that deprivation of access does not occur for the poor and marginalized owing to socio-economic status.

¹³⁹ Stephen Tully, “The Human Right to Access Electricity,” (2006) 19:3 *The Electricity Journal* 30 -39 at 33.

¹⁴⁰ ICESCR, General Comment No. 4, *supra* note 120 at 2. According to the former Special Rapporteur on the right to health, Paul Hunt, adequate housing is an underlying determinant of health and integral to the right to health itself. Other underlying determinants of health include safe drinking water and sanitation.

functioning and healthful everyday life.¹⁴¹ Everyone needs energy services such as warmth, hot water and lighting. These are not discretionary expenditures.¹⁴² Back in 1993 the World Commission on the Environment and Development stated that “Energy is necessary for daily survival.”¹⁴³

The African Commission of Human and People’s Rights recognized how essential services like electricity are fundamental to the right to health. In the 1995 case of *Free Legal Assistance Group v. Zaire*, the Commission found that the government’s failure to provide basic services such as safe drinking water and electricity as well as an adequate supply of medicine constituted a violation of the right to health under Article 16 the *African Charter of Human and People’s Rights*.¹⁴⁴

Access to drinking water and sanitation is now a stand-alone human right which is inextricably linked to the right to health as well as the right to life and human dignity.¹⁴⁵ In rural areas, access to water depends upon electricity. Electricity allows for the pumping of clean groundwater and its distribution through a household. Energy can also be used to boil, purify, disinfect, and store water.¹⁴⁶ This is not a situation that is restricted to the developing world. Rural households in Ontario, unlike residences in towns and cities, are generally not hooked up to a municipal water supply.¹⁴⁷ When electricity service is disconnected in a rural household the ramifications go beyond the loss of power for lighting, cooking, refrigeration, and warmth. It also violates the right to water and sanitation. When electricity is cut off, the taps quickly run dry, leaving no water for drinking or cooking, let alone showering and bathing, washing dishes, doing laundry, using a toilet, or other uses. Discontinuation of a

¹⁴¹ Gordon Walker and Rosie Day, “Fuel Poverty as injustice: Integrating distribution, recognition and procedure in the struggle for affordable warmth,” (October, 2012) 49 *Energy Policy* 69 at 1 [Walker & Day]

¹⁴² Walker & Day, *supra* note 141 at 1.

¹⁴³ The Commission also went on to say that ...[C]oncern about a dependable future for energy is only natural since energy provides ‘essential services’ for human life – heat for warmth, cooking, manufacturing, or power for transport...” See World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987) at 169

¹⁴⁴ *African Charter of Human and People’s Rights*, 27 June 1981, Doc. OAU/CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982) [*African Charter*]. Article 16 of the *African Charter* states that “every individual shall have the right to enjoy the best attainable state of physical and mental health, and that State Parties should take the necessary measures to protect the health of their people.” See *Free Legal Assistance Group and Others v. Zaire*, Comm. Nos. 25/89, 47/90, 56/91, 100/93, (2000) AHRLR 74 (ACHPR 1995) at para. 47.

¹⁴⁵ The right to water remains somewhat controversial as it is not explicitly protected under the ICESCR or other human rights instruments. The CESCR first discussed the right to water back in 2002 in General Comment No. 15. However, in 2010, the human right to drinking water and sanitation was recognized by the UN General Assembly and the Human Rights Council See UN General Assembly, The human right to safe drinking water and sanitation (adopted 28 July 2010), UNGA RES 64/292, 3 August 2010 and UN Human Rights Council, The human right to safe drinking water and sanitation, UNOHRC, Fifteenth Session, A/HRC/RES/15/9, 30 September 2010.

¹⁴⁶ Bradbrook & Gardam, *supra* note 64 at 394; See also International Institute of Applied Energy Analysis, “Chapter 2: Energy Poverty and Development,” in Thomas B. Johansson et al (eds.), *Global Energy Assessment: Towards a Sustainable Future* (Cambridge: Cambridge University Press, 2012) at 153-155.

¹⁴⁷ David Hardie and Alessandro Alasia, Domestic Water Use: The Relevance of Rurality in Quantity Used and Perceived Quality, Rural and Small Town Canada Analysis Bulletin Catalogue no. 21-006-X Vol. 7, No. 5 (Statistics Canada, January 2009) at 7-8.

residence's electricity supply and sanitation constitutes a "defacto eviction," according to former UN Special Rapporteur, Raquel Rolnick.¹⁴⁸

Hydro One disconnected close to 10,000 customers in 2015.¹⁴⁹ It appears that distributors are not required to undertake vulnerability assessments prior to disconnecting electrical service. Stakeholders like Health Providers Against Poverty (HPAP) have drawn attention to effects of service disconnections on the sick and elderly. According to a spokesperson for the HPAP, Hydro One disconnected a terminally-ill woman who was dying at home during the summer of 2016.¹⁵⁰ Cancer patient advocates suggest that terminally-ill patients are a vulnerable and hidden group suffering from energy poverty.¹⁵¹

As discussed in Section 2, energy poverty can have other significant repercussions for individuals and families. Turning down the thermostat is a common way to save costs for households living in energy poverty. However, lower than optimum household temperatures lead to a reduced level of comfort, mental stress, and greater risk of disease and even death, especially for vulnerable groups such as the elderly.¹⁵² Reports confirm that rural households in Ontario with the elderly and young children shut down electric baseboards and go without heat overnight to save on electricity costs.¹⁵³

That these deprivations violate the human right to dignity, security and life itself seem obvious, yet historically, human rights related to adequate housing and other social supports have not been treated as an aspect of the right to life. Efforts to translate the full suite of rights set out in the UN Declaration of Human Rights (which included civil, political and economic and social rights) into a single binding

¹⁴⁸ The Special Rapporteur was referring to the circumstances of families in Thailand who were living in transitional shelter sites where electricity and water services were discontinued. See Special Rapporteur for adequate housing (Raquel Rolnick), *Summary of communications sent and replies received from Governments and other actors*, UNHRCOR, 10th Sess. UN Doc. A/HRC/10/47/Add.1 (2009) at para. 76

¹⁴⁹ Ontario Energy Board, *Data Reported by Electricity Distributors: Disconnections and Reconnections (2013-2015)*, July 13, 2016 at 2. As noted in the previous discussion of arrears data, the data is not segregated for Hydro One customers.

¹⁵⁰ Sean O'Shea, "Angry rural Ontario hydro customers stage protest over rising costs," *Global News*, September 24, 2016. The report quotes Kathy Hardill of Health Providers Against Poverty. According to the report, the woman's son had to charge car batteries to run some minimal fans to try to keep her cool after her service was disconnected.

¹⁵¹ Walker and Day, *supra* note 141 at 72; Macmillan Cancer Support in the U.K. has highlighted the risk of fuel poverty amongst cancer patients, 40% of whom incur a drop in income as a result of their illness at a time when they face increased costs, including fuel bills. Nearly 1 in 5 people living with cancer turn the heating off, even though they feel cold. 60% of patients with cancer have incurred higher energy bills since their diagnosis and 1 in 4 struggle to pay their energy bills. See Macmillan Cancer Support, "Freeze Out Fuel Poverty – The Facts," online: <http://www.macmillan.org.uk/get-involved/campaigns/hidden-cost-of-cancer/freeze-out-fuel-poverty.html#259611>

¹⁵² See various references at notes 74 – 77 in Section 2.

¹⁵³ See footnote 76 in Section 2 with regard to the situation in Ontario. It appears that the health impacts from these cost-saving practices have not yet been thoroughly studied in Ontario.

covenant were unsuccessful after 1948.¹⁵⁴ This artificial separation of economic, social and cultural rights was a product of the geopolitics of the Cold War.¹⁵⁵ However, the current UN doctrine that all human rights are universal, indivisible and interrelated was agreed to in 1993 in the Vienna Declaration and Program of Action.¹⁵⁶ This distinction between these two sets of rights at the universal level has been challenged by the jurisprudence of the regional human rights treaty bodies and courts as well as by regional state practice.¹⁵⁷ Furthermore, many modern national constitutions include legally enforceable economic, social and cultural rights within their lists of fundamental rights, notably in South Africa, Thailand, Indonesia, Brazil, Argentina, Bolivia, and Ecuador.¹⁵⁸

Leilani Farha has advocated recently for increased recognition of the connections between the right to life and housing before the UN Human Rights Committee (HRC), which is in the process of reviewing its General Comment on the right to life. Farha suggested that the jurisprudence and commentary of the HRC has reinforced the separation between the right to life and deprivations resulting from inadequate housing conditions and homelessness.¹⁵⁹ In her view, the time is right for a re-visioning of the right to life given that governments “take guidance from the Committee as to the nature of their obligations to protect the right to life and how this right should be interpreted and applied...”¹⁶⁰

¹⁵⁴ Instead, these rights were divided into two distinct instruments, the International Covenant on Civil and Political Rights, 16 December 1966, 999 UNTS 171 (entered into force 3 January 1976) (ICCPR) and the ICESCR, *supra* note 115. The right to life is enshrined in Article 6 of the ICCPR.

¹⁵⁵ See P. Alston and R. Goodman, *International Human Rights* (Oxford: Oxford University Press, 2013) at 278-282.

¹⁵⁶ *Vienna Declaration and Programme of Action*, UNGAOR A/CONF.157/23, 12 July 1993, Endorsed by U.N. General Assembly Resolution 48/121, 20 December 1993. See Part I at para. 5.

¹⁵⁷ In recent years, several courts and regional bodies have routinely adjudicated upon ESC rights claims. (ICJ, at 15). Regional human rights bodies and courts have affirmed that environmental contamination and economic marginalization engages the right to life. In 2001 the African Commission on Human and Peoples’ Rights held that severe environmental contamination from oil resource development was a violation of the right to life. It determined that the very survival of the Ogoni community in Nigeria was imperiled by pollution of their lands by corporate and government interests. See African Commission for Human and Peoples’ rights, African Commission on Human and Peoples’ Rights, Social and Economic Rights Action Center (SERAC) and Center for Economic and Social Rights (CESR) / Nigeria, Comm. No. 155/96, October 27, 2001 at para. 67. <http://caselaw.ihrrda.org/doc/155.96/view/en/#summary>. In the “Street Children” case, the Inter-American Court of Human Rights established that the right to life includes not only the right to exist and not to be arbitrarily deprived of life, but also the right not to be impeded from access to conditions that ensure a decent existence or a life with dignity See I/A Court H.R., *The “Street Children” Case (Villagrán Morales et al.)*. Judgment of November 19, 1999. Series C No. 63 at para. 144; I/A Commission of Human Rights, *The Rights of the Child in the Inter-American Human Rights System*, 2nd Ed., OEA/Ser.L/V/II.133, Doc. 34, 29 October 2008 at paras. 126, 131-132.

¹⁵⁸ International Commission of Jurists, at 15, 17 – report on Nepalese constitution.

¹⁵⁹ Leilani Farha, Special Rapporteur on the Right to Adequate Housing, *The Right to Life & the Right to Housing: Presentation to the Human Rights Committee*, 11 July 2016 at 6.

http://www.ohchr.org/Documents/Issues/Housing/11072016_SR_Housing_Presentation-HR_Committee.pdf

¹⁶⁰ Leilani Farha added that many courts, tribunals and human rights institutions and advocates are also guided by the Committee’s work to determine how the right to life should be interpreted, what claims should be advanced and what remedies should be available to claimants. She also added that a narrow interpretation of the right to life may prevent someone who is homeless or suffering severe housing inadequacy from making any human rights claim whatsoever. *Ibid* at 6-7.

Indications are that the HRC is prepared to depart from the traditional parameters of the right to life. A November 2016 version of the draft comment prescribes that States have a duty to take appropriate measures to address the general conditions in society that might eventually give rise to direct threats to life or prevent individuals from enjoying their right to life with dignity. Both short-term and long-term measures for ensuring adequate conditions for protecting the right to life were listed.¹⁶¹

A more expansive definition of the right to life by the Human Rights Committee may, as Farha suggested, influence governments' and domestic courts' interpretation of the right to life and deprivations of human rights like adequate housing that are connected to the right to life and human security and dignity.¹⁶² In Canada, this may heighten the significance accorded to violations of adequate housing such as homelessness and energy poverty and open the door to advancing redress for violations of social and economic rights through section 7 *Charter* claims.

3.3 Canada's violation of the right of economic access for rural customers of Hydro One

Canada's obligation with regard to the right of access to electricity, primarily as part of the right to adequate housing and an adequate standard of living are spelled out in several international treaty instruments including the International Covenant on Economic, Social, and Cultural Rights and other treaties dedicated to the rights of children and people with disabilities.¹⁶³ Rural women are singled out for special protections under the CEDAW.¹⁶⁴ The right of access to electricity is also closely linked to the right to health, the right to water, and the right to life.

States have a three-pronged duty to respect, protect, and fulfill the human rights of individuals. States are also obligated to guarantee these rights to everyone without discrimination.¹⁶⁵ International

¹⁶¹ It has not been possible to locate a copy of the actual draft document. This text is taken from the press summary. See OHCHR, Press Release summary: Human Rights Committee continues to discuss draft general comment on the right to life, 2 November 2016) <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=20817&LangID=E>.

¹⁶² Leilani Farha, Special Rapporteur on the Right to Adequate Housing, The Right to Life & the Right to Housing: Presentation to the Human Rights Committee, 11 July 2016 at 6.

¹⁶³ *Convention on the Elimination of All Forms of Discrimination Against Women* 18 December 1979. UNTS vol. 1249, p. 13 (entered into force 3 September 1981) (CEDAW); See Article 24 of the *Convention on the Rights of the Child*, 20 November, 1989, UNTS, vol. 1577, p. 3 (entered into force 2 September 1990); See also Articles 9 and 28 of the *Convention on the Rights of Persons with Disabilities*, 13 December 2006, UNTS 2515 (2006) p. 3 (entered into force on 3 May 2008).

¹⁶⁴ They have a specific entitlement to electricity, as well as to housing, sanitation and water, as part of their right to adequate living conditions, without discrimination. See article 14 of the CEDAW, *supra* note 117

¹⁶⁵ The first Special Rapporteur on the Right to Adequate Housing, Miloon Kothari explained the substance of State obligations in relation to the right to adequate housing, including access to basic services like electricity in his 2002 report on his mission to Mexico. His comments included access to essential services like electricity. See Report of the Special

human rights law recognizes that ESC rights cannot be realized in their full scope overnight. However, States must take appropriate measures towards the full realization of ESC rights to the maximum of their available resources¹⁶⁶ and steps toward that goal must be taken within a reasonably short time after the obligations take legal effect. It has been over 40 years since Canada ratified the ICESCR, and more than 20 years since human rights guarantees to rural women under CEDAW took effect. Given Canada's economic status, the time allowed for progressive realization of the right of access to energy in all its dimensions has clearly expired.

Furthermore, international human rights law requires that State action to realize human rights obligations "should be deliberate, concrete and targeted as clearly as possible towards meeting the obligations."¹⁶⁷ Vulnerable members of society must be protected by the adoption of targeted programs, irrespective of resource constraints or economic recession or other factors.¹⁶⁸ Rights holders also have a legitimate expectation, based on the principle of good faith, that all administrative authorities will take account of the requirements of the Covenant in their decision-making.¹⁶⁹

This section of the paper examines whether the right of access to energy (in this particular case, electricity) is respected, protected, and fulfilled for rural Ontarians. It will be argued that Canada, by virtue of inaction or inadequate compliance by the Province of Ontario, is violating the right of rural Ontario customers to access energy that is affordable as well as other international human rights by implication such as the right to health, the right to water and sanitation and the right to life. The two main components of State activity that have a bearing on the access to affordable energy are the setting of tariffs and provision of mitigation measures such as cross-subsidization. The discussion below centres on these two elements.

Rapporteur on the Right to Adequate Housing to the 59th Commission on Human Rights (Miloon Kothari), Mission to Mexico (4-15 March 2002), E/CN.4/2003/5/Add.3 27 March 2003, at paras. 31 – 42.

¹⁶⁶ International Commission of Jurists, *Economic, Social and Cultural Rights and the New Constitution of Nepal*, August, 2009, at 12.

http://www.icj.org/wp-content/uploads/2012/04/Nepal_Economic-Social-and-Cultural-Rights-and-The-New-Constitution_Thematic-Report_2009.pdf

¹⁶⁷ Committee on Economic, Social, and Cultural Rights., General comment No. 3: The nature of States parties' obligations (art. 2, para. 1, of the Covenant), U.N. Doc E/1991/23 (1990), para. 2.

¹⁶⁸ *Ibid* at para. 12.

¹⁶⁹ Committee on Economic, Social and Cultural Rights (CESCR), *General Comment No. 9: The domestic application of the Covenant*, 3 December 1998, E/C.12/1998/24 para 9:

3.3.1 Rate decisions of the Ontario Energy Board

The issue in Ontario is not physical access to electricity, as all distributors under the province are required to provide customers with access.¹⁷⁰ Ontario's electricity distributors operate in a relatively non-competitive, monopolistic environment with a virtually guaranteed customer base in their particular service area.

“In exchange for a monopoly over production, transmission, and distribution of electricity, the regulated utility was not permitted to simply cherry-pick the low-cost, easy-to-serve customer but was required to establish access to service for all customers...”¹⁷¹

Changes to the legal regime in 1998, took rate setting out of the hands of the municipal utilities and Ontario Hydro and put it under the purview of the OEB.¹⁷² When setting rates, the OEB, like many other utility regulators, is obliged to strike a balance between the interests of consumers and utilities operating as commercial enterprises for the benefit of their public shareholders.¹⁷³ The Board is required to be guided by several objectives including protecting the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service.¹⁷⁴

With regard to rate setting, the Board has authority to make orders “approving or fixing just and reasonable rates” for the distribution of electricity. Distributors must abide by these rate orders when charging for distribution.¹⁷⁵ Rates have traditionally been designed with the “principled objective of

¹⁷⁰ Access to electricity services without discrimination is protected under sections 1 and 26 of Ontario's *Electricity Act, 1998*. Distributors are obligated to provide consumers with “non-discriminatory access” to their distribution system” in accordance with their license. See s. 26(1) of the *Electricity Act, 1998*, S.O. 1998, c. 15, Sched. A

¹⁷¹ Claire McNeil and Vincent Calderhead, “Access to Energy: How Form Overtook Substance and *Disempowered* the Poor in Nova Scotia,” in Martha Jackman & Bruce Porter, eds, *Advancing Social Rights in Canada* (Toronto: Irwin Law Inc., 2014) 253 – 281 at 258 [McNeil & Calderhead].

¹⁷² Provincial regulation of electricity supply and distribution evolved significantly about two decades ago. It is now a highly regulated environment which is more in keeping with other jurisdictions across North America. Section 1 of the paper described some of the changes that resulted from policy and regulatory changes brought about in 1998 by the Ontario government. See Section 1. See also McNeil and Calderhead, *ibid*, at 257-259. The authors provide an overview of common utility regulatory principles in their chapter

¹⁷³ MacNeil & Calderhead, *supra* note 171 at 257-258; In the case of *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, 2008 CanLII 23487 (ON SCDC) the Divisional Court noted that the “Board’s regulatory power is designed to act as a proxy in the public interest for competition in view of a utility’s geographical monopoly.” See paras 39 & 40. [*Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*]

¹⁷⁴ Section 1(1) of the OEB Act, 1998. Other objectives include promoting the education of consumers and economic efficiency and cost-effectiveness to facilitate a financially viable electricity industry.

¹⁷⁵ Section 78(2) and 78(3) of the *Ontario Energy Board Act, 1998*

having each rate class pay for the actual costs that it imposes on the utility.”¹⁷⁶ The “cost of service” approach relies on notions of “cost causality.” The Board requires detailed cost-allocation evidence during rate submission processes. This approach considers a utility’s costs (capital investments and maintenance) as well as a fair rate of return to determine revenue requirements associating with serving each rate class. The cost to serve is then divided among the customers within each rate class.

As noted in previous sections, Hydro One has three year-round residential rate classes which is divided into three service types according to density R2 (low-density), R1 (medium-density) and UR (urban-density).¹⁷⁷ The UR class was established in 1997. The Board’s application of principles of cost of service and cost causality has reinforced the differences between the three rate classes.¹⁷⁸ Rates reflect the differential costs to serve each class with cost to serve per customer rising as density decreases (and vice versa). Back in 2012, the Board ordered Hydro One to conduct a study to analyze how its service costs were affected by customer density.¹⁷⁹ The study concluded that there was a wide range of customer densities within the rural power district which justified three different density-based residential sub-classes for Hydro One. The study also examined costs and confirmed that cost of service does differ according to density.¹⁸⁰ The Board also ordered Hydro One to conduct a further review to ensure that all customers were properly classified.¹⁸¹ The study found that 11% of residential customers were not in the appropriate density zone. Tens of thousands of customers were reclassified from R2 (low-density) to R1 (medium-density).¹⁸² As a consequence there are now fewer customers in the R2 density zone, roughly 30,000 less than before the review.¹⁸³ Based on cost of service principles, the cost to serve each customer in the low-density (R2) rate class must necessarily increase.

¹⁷⁶ *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, *supra* note 173 at paras. 42-43.

¹⁷⁷ Customers classified as Urban (High) Density (UR) reside in a urban high density zone that contains 3,000 or more customers with at least 60 customers for every kilometre of power line used to supply electricity to that zone; Customers classified as Medium density (R1) are those that reside in a medium-density zone which is an area with a minimum of 100 customers with at least 15 customers for every kilometre of power line; Customers in a low-density zone are those not covered by an Urban or Medium density zone (i.e. the remainder). Hydro One, “Understanding Your Service Type,” accessed Nov. 18, 2016.

¹⁷⁸ See discussion in Sections 1 and 2 of this paper.

¹⁷⁹ Interrogatory, EB File 2012-0136 (Energy Probe) at 2.

¹⁸⁰ Customer Density and Distribution Service Costs: A Report Prepared for Hydro One Networks, Inc. by London Economics International LLC and PowerNex Associates Inc. November 11th, 2011 (Exhibit D-1-1 Attachment 1, August 29, 2012 EB-2012-0136) at i – vi. See also Interrogatory, EB File 2012-0136 (VECC), (My docs 9) at 2.

¹⁸¹ Hydro One, Customer Classification, EB-2013-0416, Exhibit G1, Tab 2, Schedule 1, Filed 2013-12-19.

¹⁸² Hydro One, Customer Classification, EB-2013-0416, Exhibit G1, Tab 2, Schedule 1, Filed 2013-12-19 at 2.

¹⁸³ In the end, the number of R2 customers decreased by roughly 30,000. Most were absorbed by the R1 class. Hydro One estimates put the total number of R2 customers in 2017 at 334, 551. Corresponding numbers for the other residential year-round classes are as follows: R1 (medium density) – 445,243; Urban density (UR) 213, 918. See Hydro One Networks Inc., Distribution 2015-2017 Rates Application -- 2017 Draft Rate Order, filed October 7, 2016. [EB-2016-0081], Exhibit 2, page 4.

The increased disparity in the energy costs between rural and urban customers is the result of cost-to-serve principles applied within a rate structure that explicitly condones differences based on residency. The cost to support the infrastructure necessary to service the vast rural power district is borne by an ever-decreasing number of customers. The Board's rate decisions are made within the context of a fragmented system of electricity distribution in Ontario. Inequality is embedded in an electricity distribution framework with multiple distributors all charging different rates around the province. Discrimination based on one's place of residence is a contravention of the ICESCR and other international human rights instruments. That this is an example of direct discrimination based on residency seems obvious, however the rates applied for low-density R2 customers arguably manifest in substantive inequality, having disproportionate impacts of vulnerable individuals and groups within the rural low-density rate class. Grounds of discrimination that are recognized by the CDESCR in addition to place of residence include age, health status, economic and social situation. Other instruments prohibit discrimination with regard to economic access on the basis of gender, disability, etc.

As noted in the Divisional Court decision of *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, the Board adheres to the principled objectives of having each rate class pay for the actual costs that class imposes on the utility and has "sought to avoid inter-class and intra-class subsidies." In keeping with this approach, "it has refused the establishment of a special rate class to provide redress for aboriginal consumers."¹⁸⁴

The Divisional Court of Ontario has emphasized that the Board's mandate to fix just and reasonable rates is "unconditioned by directed criteria and is broad; the board is expressly allowed to adopt any method that it deems appropriate."¹⁸⁵ In *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board* the Divisional Court found that the Board has considerable discretion when addressing its statutory objectives: "...to further the objective of protecting 'the interests of consumers' this could mean taking into account income levels in pricing to achieve the delivery of affordable energy to low-income consumers..."¹⁸⁶

¹⁸⁴ *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, *supra* note 173 at paras 40-43. The Divisional Court was referring to the Board's decision in Ontario Energy Board, Central Gas Ontario and Union Gas Ltd (for rates), Decision with Reasons, EBRO 0493, March 20, 1997. In that case, the Ontario Native Alliance requested the board to order a utility to evaluate the establishment of a rate class for the purpose of providing a special rate for aboriginal peoples. The Board declined, as this would entail discrimination between rate classes and go against the principles of cost causality (at para 316-317).

¹⁸⁵ *Natural Resource Gas Ltd. v Ontario Energy Board*, [2005] O.J. No. 1520 at para. 13 (Div. Ct.). The Divisional Court also stated in *Enbridge Gas Distribution Inc. v. Ontario Energy Board* (2005), 75 O.R. (3d) 72, [2005] O.J. No. 756 at para.24.

¹⁸⁶ *Advocacy Centre for Tenants-Ontario*, *supra* note 173 at para. 54-55.

Notwithstanding the Court's ruling in *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, the Board seems firmly wedded to the cost-of-service principles and absent any specific policy direction from the government, it seems for the most part to be disinclined to consider customer income levels or rate affordability for customers as part of its decision-making function. Data on customer arrears and disconnections have not been considered as part of the rate setting process.¹⁸⁷ The Board does consider customer price shocks – that is, it does consider whether a customer's bill will increase more than 10% in any given year.¹⁸⁸

To conclude with regard to tariff setting, it is apparent that tariff setting in conjunction with the fragmented nature of the distribution system is perpetuating inequality of economic access for rural customers of Hydro One, impairing or nullifying the enjoyment of the right of access to electricity by low-density (R2) rural households, particularly vulnerable and recognized groups and other rights by implication.

However, international human rights law recognizes that States can assure equality with regard to economic access via mitigation programs including cross-subsidies. The effectiveness of Ontario's cross-subsidy programs are discussed below.

3.3.2 Mitigation programs

The following discussion focusses on two primary rate mitigation programs, namely rural rate protection and the Ontario Electricity Support Program (OESP).¹⁸⁹ These programs are examined in light of the principles that State obligations to address obligations under international human rights law must be taken within a reasonably short time, should be deliberate, concrete and targeted as clearly as possible towards meeting the obligations recognized in the Covenant.¹⁹⁰

¹⁸⁷ See section 2 and the discussion on recent collection of data on arrears and disconnections See also, Ontario Energy Board, Background: Consumer Protection, utility data and low-income support programs, August 17, 2014, at 2

¹⁸⁸ See Ontario Energy Board, Filing Requirements for Electricity Distribution Rate Applications, issued July 17, 2015, s. 2.8.13. Distributors are required to analyze impacts on customer bills against a 10% benchmark.

¹⁸⁹ It is recognized that the government has other measures in place to assist low-income households including the Low-income Energy Assistance Program (LEAP) and the Northern Energy Tax Credit. They were not evaluated as part of this research paper as they are regarded as ancillary programs to the main on-going support programs namely the OESP and the RRRP. In the case of LEAP for example, this program does not provide on-going support for low-income households. It should be considered as a backstop program only. Other measures are not specifically targeted to electricity relief (e.g. Northern Energy Tax Credit or the Ontario Energy and Property Tax Credit).

¹⁹⁰ Committee on Economic, Social, and Cultural Rights., General comment No. 3: The nature of States parties' obligations (art. 2, para. 1, of the Covenant), U.N. Doc E/1991/23 (1990), para. 2.

The OEB was asked to develop the OESP in a very short period of time. This is a support program for low-income electricity customers. Households that are at or below the LIM-AT¹⁹¹ receive a monthly credit which is based on income and household size. First Nations and Métis households and households that rely on electric heat get a minor top-up to the monthly credit.¹⁹² To this extent, it is a targeted program directed towards rate relief for certain vulnerable households.

It is not apparent that the specific concerns and challenges of rural household were considered to any great extent during program development. It does not appear that many rural stakeholders knew about the consultations or participated in them.¹⁹³ The Board's preparatory report on the OESP makes little or no mention of the specific concerns or challenges of rural customers including higher than average electricity consumption. In fact, the OEB's projection of the potential impacts of the proposed OESP assistance amount was based on a so-called "average" residential customer bill which is significantly lower than an average Hydro One rural customer bill.¹⁹⁴ In these and other regards, the program is relatively generic. For example, consumption patterns and customer costs for single person or single-earner households do not seem to have been factored into the program.¹⁹⁵

The general premise behind the program is to provide "assistance" to low-income households. The overall objectives and desired outcomes of the OESP are unclear beyond this.

One can presume that the apparent absence of consideration of rural low-density Hydro One customers was due to the existence of the rural rate protection credit. However, as discussed in Section 1 and 2, when the OESP was launched in 2015 the rural rate protection credit was not adequately mitigating the impacts of increasing distribution rates set by the Board for Hydro One rural customers.

The analysis in Appendix 3 also considered the impact of the government's new measures for electricity customers announced in September 2016. Ministerial statements in the legislative assembly about the rural rate protection increase refer to the measure as an "update" to rate protection for rural customers. It was suggested that these changes represent "significant relief" for the roughly 330,000

¹⁹¹ Ontario Energy Board, *Report of the Board: Developing the Ontario Energy Support Program*, (Toronto: author, 2014), EB-2014-0227

¹⁹² *Ibid* at 11-12. First Nations and Métis households and households relying electric heat get an additional top-up which ranges from \$15.00 to \$25.00 a month depending on their household income and family size. Other households that can receive the additional amount include households using specific types of medical equipment.

¹⁹³ Pers. Communication, Francesca Dobbyn, Executive-Director, the United Way of Bruce Grey, September 22, 2016.

¹⁹⁴ This "average" customer bill referenced in the OEB report (800 kWh monthly consumption) is significantly lower than a Hydro One rural customer bill. As discussed in Section 2, average consumption for a rural household is approximately 1000-1200 kWh per month. Ontario Energy Board, *Report of the Board: Developing the Ontario Energy Support Program*, (Toronto: author, 2014), EB-2014-0227, Appendix C at 41-43.

¹⁹⁵ Single person households must afford the flat rate distribution service charge just like other households. The base costs to run a home, including large kitchen appliances and a hot water tank must be borne on a single income.

Hydro One low-density (R2) customers that will benefit from the additional discount. However, these additional measures, combined with the OESP credit, will not measurably reduce the energy poverty gap for rural low-income households. Many rural households, particularly those comprised of one or two individuals and /or reliant on some form of electric heat, are likely to be experiencing severe to extreme energy poverty.

All of the above points to an implementation gap with regard to the government's compliance with obligations under international human rights law to provide affordable access to all, without discrimination based on residency and without disproportionate impacts on vulnerable individuals and groups like women, the disabled, and Indigenous peoples.¹⁹⁶

It is apparent that the government lacks a roadmap, in the form of a policy and targeted strategy, to ensure that Ontario is addressing Canada's human rights obligations. Energy poverty in Ontario has not been the subject of substantive research. The implementation gap with regard to energy poverty could be attributable to "statistical invisibility." Leilani Farha has suggested that "statistical invisibility" can mean neglect in design of public policy and absence of adequate responses.¹⁹⁷

The human rights dimensions of this issue are not lost on the provincial government. This is evident from the Minister of Energy's recent request to the OEB to develop a proposal for a special rate for on-reserve First Nations electricity consumers.¹⁹⁸

Meanwhile, rural Ontarians are asking for some assurance from the government that it will take steps to assure access to an essential service like electricity. During a recent hearing in the autumn of 2016 to consider the government's proposed eight percent rebate, a resident of rural Grey County put a question to the government most eloquently when she asked, "[w]ill the government set a target so that affordable energy means that everybody in Ontario can afford to pay for their hydro?"¹⁹⁹

¹⁹⁶ As a general rule, social and economic entitlements such as the right to an adequate standard of living under the ICESCR and other international human rights instruments have not received explicit recognition and implementation in Canada. Ontario does not appear to be an exception to the rule. There appears to be an absence of specific legislation that is explicitly directed to the realization of the right to adequate housing or the right to an adequate standard of living more broadly. Ontario's electricity regulatory regime does not explicitly provide for an enforceable right of access to "affordable" electricity for persons in Ontario, nor is such a right guaranteed without distinction based on where one resides.

¹⁹⁷ The Special Rapporteur made this comment in her 2015 report on homelessness but this observation could easily apply to energy poverty in Ontario. Special Rapporteur on the Right to Adequate Housing (Leilani Farha), *Annual Report (The Right to Adequate Housing (Focus: Homelessness))*, UNHRCOR, 31st Sess., U.N. Doc. A/HRC/31/54 (2015) para. 72 at 17

¹⁹⁸ Letter from Glenn Thibeault, Minister of Energy to Ontario Energy Board, Re: Options for an Appropriate Rate Assistance Program for On-Reserve First Nations Electricity Consumers, July 27, 2016

¹⁹⁹ Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 41st Parl., 2nd Sess., Standing Committee on Justice Policy (Ontario Rebate for Consumer's Act), 3 October 2016 at JP-27 to JP-28 (Lynda Smith).

4. OBTAINING REDRESS - LEGAL AND OTHER AVENUES

Legally-binding human rights are rights held by individuals and [in theory] are enforceable in some way against a State.²⁰⁰ State parties are required to give effect to their obligations in good faith.²⁰¹ Individuals should be able to seek enforcement of their rights within the domestic legal system or via administrative remedies.²⁰² This section of the paper briefly explores legal and other avenues to enforce compliance with international human rights obligations and obtain a remedy. It briefly reviews avenues for redress under international treaty complaint mechanisms and then examines legal avenues provided under Canadian domestic law. The latter holds somewhat more promise than the former. However, jurisprudence under the *Canadian Charter of Rights and Freedoms*,²⁰³ suggests that several hurdles need to be overcome to obtain a favorable ruling and remedy to assure affordable access to electricity for rural customers of Hydro One.

The desired remedy in this case would be legal and programmatic measures that would ensure that Ontario respects, protects and fulfils Canada's obligations to realize the right of Ontarians to access to electricity which is affordable and also address other human rights obligations such as the right to water and the right to health. The elements of the desired remedy are two-fold: First, to create a level playing field for rural customers with regard to rates;²⁰⁴ and second, to develop a comprehensive and tailored energy affordability strategy and program to ensure affordable access to electricity for rural customers and all electricity customers in Ontario. This program should go beyond the model that is currently in place in Ontario under the Ontario Electricity Assistance Program as thresholds would not be solely income or wealth-based. The program should recognize and integrate the other drivers of energy poverty including the particular vulnerabilities and circumstances of rural residential customers.

²⁰⁰ Cosmo Graham, "Human Rights and the Privatisation of Public Utilities and Essential Services," in Koen De Feyter & Felipe Gomez Isa, eds, *Privatisation and Human rights in the Age of Globalisation* (Antwerp: Intersentia, 2005) 33 at 37.

²⁰¹ Article 26 of the *Vienna Convention on the Law of Treaties*, 23 May 1969, UNTS, vol. 1155, p. 331

²⁰² CESCR, General Comment No. 9: The domestic application of the covenant, Economic and Social Council, UN Doc. E/C.12/1998/24, 3 December 1998. See paras. 4 & 9. Wayne MacKay, "Social and Economic Rights in Canada: What Are They, and Who Can Best Protect Them?," (chapter 15), in J.E. Magnet & B. Adell, eds, *The Canadian Charter of Rights and Freedoms: After Twenty-Five Years* (Markham, Ontario: LexisNexis Canada Inc., 2009) 385-428, at 388 [MacKay]

²⁰³ *Canadian Charter of Rights and Freedoms*, Part 1 of the *Constitution Act, 1982* (Schedule B to the *Canada Act 1982* (UK), 1982, c II [Charter])

²⁰⁴ Given that each local utility as well as Hydro One is licensed and regulated by the Board and each charge different rates as per OEB rates decisions there is inherent inequality throughout the system and the question becomes, how one would level the playing field – against or equal to which rate by which distributor? How would Hydro One recover its costs? The government could choose to use the tool of rural rate assistance to level the playing field but this must not be restricted to R2 customers only as R1 customers also pay higher rates than the majority of LDC customers. This is likely a short-term solution only and rural rate assistance must be adjusted to assure that the rate gap is addressed. The long-term solution is likely to move to a model of equalized rates across the province as is found in most other provinces.

To address the specific circumstances of rural customers it is suggested that the strategy should include a tailored sub-program for rural residents. This would include specific rules with regard to rural disconnections. Prior to development of this strategy, many of the research gaps identified in Sections 2 and 3 would need to be addressed.

4.1 International complaint mechanisms

While complaint mechanisms have been established under various human rights instruments that provide for entitlements to energy access, two optional protocols establishing such mechanisms have been ratified by Canada and have entered into force. These are the optional protocols to the ICCPR and the CEDAW.²⁰⁵ The draft general comment of the Human Rights Committee on the right to life under the ICCPR signals that the HRC may consider receipt of communications alleging violations of the right to life under the ICCPR on the basis of social and economic circumstances or deprivation. However, submission of a communication (i.e. a complaint) alleging a violation of either the ICCPR or the CEDAW under either of these processes would be premature as complainants need to demonstrate that they have first exhausted all available domestic legal remedies.²⁰⁶

The Special Rapporteur on the right to adequate housing may receive complaints (communications) regarding alleged violations of human rights related to her mandate. Upon review of the complaint, the Special Rapporteur will communicate the complaint to the relevant State and request information, comments and/or reporting on domestic actions.²⁰⁷ U.N. Special Rapporteurs view this process as a way to engage in a constructive dialogue and spur States to investigate allegations and initiate redress.²⁰⁸ Communications and responses are made public.²⁰⁹ The Special Rapporteur has no

²⁰⁵ *1966 Optional Protocol to the 1966 International Covenant on Civil and Political Rights*, 16 December 1966, 999 UNTS 171 / [1991] ATS 39 (entered into force March 23, 1976). *Optional Protocol to the Convention on the Elimination of All Forms of Discrimination Against Women*, 6 October 1999, United Nations, Treaty Series, vol. 2131, p. 83, 6 October 1999 (entry into force 22 December 2000). Canada has not ratified the Optional Protocol to the ICESCR, or treaties on the rights of persons with disabilities, children.²⁰⁵ Article 14 of the International Convention on the Elimination of Racial Discrimination provides for a complaint petition process. *International Convention on the Elimination of Racial Discrimination*, 21 December 1965, UNTS, vol. 660, p. 195 (ICERD)

²⁰⁶ *Ibid.* A similar admissibility requirement is in place for complainants wishing petition under Article 14 of the ICERD. See *Ibid.*

²⁰⁷ There is no requirements that submitters exhaust legal remedies prior to forwarding a request to the Special Rapporteur. Upon reviewing the complaint, the Special Rapporteur has discretion to follow through (or not) with a communication to a State. Special Rapporteur on the right to adequate housing (Raquel Rolnik), *Summary of communications sent and replies received from Governments and other actors*, UNHRCOR, 16th Sess. UN Doc. A/HRC/16/42/Add.1 (2011) at 3.

²⁰⁸ *Ibid.*, at 3-4. See also Special Rapporteur on the right to adequate housing (Raquel Rolnik), *Summary of Communications Sent and Replies Received from Governments and Other Actors*, UNHRCOR, 10th Sess., UN Doc. 1/HRC/10/7/Add. 1, at 4.

authority to oblige a State to respond or take action, however the process shines a spotlight on alleged violations and is one of the few formal complaint mechanisms available to address alleged violations related to the right to adequate housing.²¹⁰ This process has been rarely used, if at all, to address alleged violations by Canada of the right to housing and related rights such as the right of access to energy.²¹¹ A communication would inform the Special Rapporteur of the scope and extent of the energy poverty crisis in rural Ontario and the Special Rapporteur could seek answers, and ideally obtain commitments from the Ontario government, to eliminate the rural – urban inequity with respect to electricity charges and address other gaps in relation to energy poverty – namely, a knowledge gap and the absence of a comprehensive energy poverty policy and strategy.²¹²

4.2 Domestic Avenues

When Canada ratifies an international treaty, the duties and obligations in that treaty do not automatically have legal effect domestically. Canada is a “dualist” state, “meaning that international treaties do not automatically take legal effect in Canada upon ratification. International treaty law must be incorporated into Canadian domestic law through legislation in order to have direct legal effect.”²¹³ Ratifying an international covenant may give the illusion of compliance by Canada but in reality it has no automatic legal effect in domestic law.²¹⁴

²⁰⁹ *Ibid*, at 4. See also UN Special Rapporteur on the right to Adequate Housing, Communications and Replies (2014 and 2015), on-line: Office of the United Nations High Commissioner for Human Rights <http://www.ohchr.org/EN/Issues/Housing/Pages/Communications.aspx>

²¹⁰ The Human Rights Council calls on States to co-operate with the Special Rapporteur in its resolution which extended the mandate of the Special Rapporteur for adequate housing in 2014. See Human Rights Council resolution 25/17, *Adequate Housing as a component of the right to an adequate standard of living*, UNHRCOR, 25th Sess., UN Doc. A/HRC/RES/25/17 (2014) at 3. The mandate of the SR is set out in another HRC resolution. See Human Rights Council resolution 6/27, *Adequate housing as a component of the right to an adequate standard of living*, UNHRCOR, UN Doc A/HRC/6/27 (2007) at 4.

²¹¹ See sources noted at notes 207 to 209.

²¹² There is no need to exhaust local remedies prior to submitting a request to a U.N. Special Rapporteur. However, The Special Rapporteur has discretion with regard to communications. Not all submission received by the special rapporteur are “communicated” to States. It should be noted that the communication could be submitted jointly to the Specials Rapporteurs on the right to water and to health.

²¹³ Standing Senate Committee on Human Rights, *Promises to Keep: Implementing Canada’s Human Rights Obligations*, December 2001 at section b), para. 1 [Standing Senate Committee]. See A. Bayefsky, “International Human Rights Law in Canadian Courts,” in B. Conforti and F. Francioni, eds, *Enforcing International Human Rights in Domestic Courts* (Cambridge, Mass., Kluwer Law International, 1997) 295-328 at 303, citing *Re Arrow River and Tributaries Slide & Boom Co. Limited*, [1932] 2 D.L.R. 250 at pp 260-261. Bayefsky refers to several later decisions that have confirmed this principle. See page 303-304.

²¹⁴ Standing Senate Committee, *ibid* at section b), para. 1

U.N. human rights treaty bodies have held that grounds for discrimination under international human rights covenants are not exhaustive and can include place of residence, or other status.²¹⁵ This non-restrictive approach is not reflected in either section 15 of the *Charter*, (as it is currently interpreted by high level domestic courts in this country) or the Ontario *Human Rights Code*.

There is little or no scope for seeking a remedy under the Code for violation of the right to affordable energy due to its narrow application. The Ontario *Human Rights Code*²¹⁶ provides that every person has a right to equal treatment with respect to goods, facilities and services without discrimination on particular grounds.²¹⁷ The grounds do not include place of residence or location. Furthermore, unequal treatment with respect to services does not apply to levies, fees, taxes or periodic payments for services. These latter are explicitly excluded from Code protections.²¹⁸

Decisions rendered by the Supreme Court of Canada with respect to discrimination based on residency under s. 15 of the *Charter* are discussed in below.²¹⁹

4.2.1 Interventions in Hydro One Rate Application Proceedings and Rights of Appeal under the Ontario Energy Board Act, 1998

An intervention in an upcoming OEB hearing on a future Hydro One rate application would be one possible approach to seek equitable distribution rates for Hydro One rural customers. This could be followed by an appeal to the Divisional Court in the event of an adverse ruling by the Board.²²⁰ There is an opportunity for stakeholders to participate as intervenors in all rate proceedings.²²¹ Prior to the

²¹⁵ Committee on Economic, Social and Cultural Rights (CESCR), *General comment No. 20: Non-discrimination in economic, social and cultural rights (art. 2, para. 2, of the International Covenant on Economic, Social and Cultural Rights)*, 2 July 2009, E/C.12/GC/20, at paras. 27-34.

²¹⁶ *Human Rights Code*, R.S.O. 1990, c H.19, as amended

²¹⁷ Section 1 of the Ontario *Human Rights Code* provides: Every person has a right to equal treatment with respect to services, goods and facilities, without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, marital status, family status or disability.

²¹⁸ Under section 10(1) of the Code, “services” does not include a levy, fee, tax or periodic payment imposed by law

²¹⁹ See discussion of *R. v. Corbiere* at 60-61 below.

²²⁰ The *OEB Act, 1998* provides for a right of appeal from an order of the Board. Section 33 of the Act provides that an appeal may be made on a question of law or jurisdiction. This avenue is foreclosed for the moment as Hydro One submitted its rate application for 2017 in October 2016 and the Board rendered its rate order for 2017 on December 21, 2016. See Hydro One Networks Inc., Distribution 2015-2017 Rates Application -- 2017 Draft Rate Order, filed October 7, 2016. [EB-2016-0081]. See also OEB, Decision and Rate Order (Hydro One Networks Inc.) EB-2016-081, December 21, 2016.

²²¹ As a tribunal operating in accordance with the principles of natural justice, the OEB invites intervenors to participate in rate proceedings. Anyone who wishes to actively participate in a proceeding can apply for intervenor status and may be eligible to have some of their costs covered. See the OEB’s Practice Direction on Cost Awards, April 24, 2014

commencement of a hearing, the parties identify the issues that should be addressed during the rate proceeding (issues list). This would provide the earliest opportunity to bring the rural rate issue specifically into the framework of a rate adjudication proceeding.²²²

As discussed in the previous section, the Ontario Divisional Court's ruling in *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board* addressed the Board's jurisdiction as part of its authority to set "just and reasonable rates." The Court's ruling confirmed that the Board has flexibility to set rates that are not strictly based on the service for cost allocation principle. It confirmed that it had jurisdiction to do so. Nonetheless, it also confirmed that the Board had discretion to apply other approaches under the rubric of "just and reasonable rates." It can apply other approaches or principles if it so chooses. Its discretion is not fettered and as an expert tribunal it can decline to use, or utilize other methods, as it deems appropriate in the circumstances.²²³

Given that the Board has considerable discretion when exercising its powers to set rates, it is unclear how the Board will respond to a request to equalize rates. The Board would likely resist this approach and conclude that it addresses rate applications by individual licensees and has no jurisdiction to render a decision that would affect rates for customers more fundamentally across the province. However, the Board establishes and applies standardized rules and requirements for all local distributors in various ways including standard service codes, etc. It also establishes broad policies that affect all distributors across the province. By way of example, the new policy entitled, "A New Distribution Rate Design for Electricity Customers" requires *all* distributors to move to a flat rate approach for distribution charges for residential electricity customers.²²⁴ The Board established the policy in 2015 and is requiring all distributors to align themselves in accordance with this new policy via policy directives and individual rate orders.-0416/²²⁵

²²² This was the strategy employed by the Advocacy Centre for Tenants-Ontario and other intervenors during the rate hearing for a natural gas distributor in 2008. They requested that residential gas rates should include a rate assistance affordability program for low-income customers. A majority of the Board rejected the issue on the basis that it was outside of the Board's jurisdiction. See Ontario Energy Board, *Enbridge Gas Distribution Inc.* (April 26, 2007), EB-2006-0034 (Board decision).

See Patrick Duffy, "Ontario Court rules regulator may consider ability to pay in rate setting," Legal Newsletter - Stikeman Elliot, June 26, 2008, accessed on Nov. 02, 2016.

²²³ *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, *supra* note 173 at paras. 52-57.

²²⁴ Ontario Energy Board, Board Policy: A New Distribution Rate Design for Residential Electricity Customers, File No. EB-2015-0401, April 2, 2015 at 1-3

²²⁵ See OEB, Decision and Order (Hydro One Networks Inc.) EB-2013-0416/EB-2015-0079, December 22, 2015; OEB, Rate Order (Hydro One Networks Inc.) – EB-2015-0079, Re: Application for electricity distribution rates and other charges beginning January 1, 2016, January 14, 2016

4.2.2 Legal Challenge under the Canadian Charter of Rights and Freedoms

It would be advisable to consider litigating under the *Charter* in two phases, starting with a targeted court challenge focussing specifically on the unconstitutionality of discriminatory OEB rate decisions under the province's electricity regulatory regime. This could be followed by litigation more akin to the *Tanudjaja*²²⁶ *Charter* challenge which sought positive policy and programmatic commitments from Canada and Ontario to reduce and eliminate homelessness and inadequate housing.

The following discussion considers the initial phase of a constitutionally-based legal strategy based on sections 15 and 7 of the *Charter*.

4.2.2.1 Section 15

In the case of a challenge under section 15, claimants need to be able to establish discrimination by showing disadvantage based on an enumerated ground specified in section 15 or one analogous thereto.²²⁷ With the exception of the Supreme Court's decision in *Corbiere v. Canada (Minister of Indian and Northern Affairs)*, *Charter* claims based on distinction due to residence have not succeeded.²²⁸ In that case, "aboriginality residence" was upheld as an analogous ground, however the Court stated clearly that "no new water is charted, in the sense of finding residence, in the generalized abstract, to be an analogous ground."²²⁹

The Court's approach to defining and accepting a non-enumerated ground as an "analogous ground" has undergone extensive elaboration and reformulation since 1982, starting with *Andrews v.*

²²⁶ *Tanudjaja v. AG (Canada)* 2013 ONSC 5410, at para. 2; Aff'd in *Tanudjaja v. Canada (Attorney General)*, 2014 ONCA 852

²²⁷ Denise G. Reaume, "Discrimination and Dignity," in Fay Faraday, Margaret Denike and M. Kate Stephenson, eds, *Making Equality Rights Real: Securing Substantive Equality under the Charter* (Toronto: Irwin Law, 2009) 123-173 at 128-129. Enumerated grounds under section 15(1) are: race, national or ethnic origin, colour, religion, sex, age or mental or physical disability. Following from the SCC's decision in *Andrews* and subsequently in *Law v. Canada (Minister of Employment and Immigration)*, [1999] 1 S.C.R. 497 [Law], the courts must find (i) distinction(s) in treatment (ii) on the basis of an enumerated or analogous ground (iii) that amounts to substantive discrimination. See Mary C. Hurley, *Charter Equality Rights: Interpretation of Section 15 in Supreme Court of Canada Decisions*, (Ottawa: Library of Parliament, 2007) [Hurley]

²²⁸ See *Corbiere v. Canada (Minister of Indian and Northern Affairs)*, [1999] 2 S.C.R. 203 ["Corbiere"]. See MacKay, *supra* note 202 at 418-419. Unsuccessful cases include *R. v. S. (S.)* [1990] 2 S.C.R. 254 (unanimous) and *R. v. Turpin* [1989] 1 S.C.R. 1296 (unanimous).

²²⁹ While the Court in *Corbiere* found that "aboriginality-residence" was a new analogous ground it was clear to note that "no new water is charted, in the sense of finding residence, in the generalized abstract, to be an analogous ground." See *Corbiere*, *ibid* at para. 15.

Law Society of British Columbia.²³⁰ This analysis became more complex under *Law v. Canada (Minister of Employment and Immigration)* and subsequent decisions on section 15.²³¹

In the absence of recognition of “residence” as an analogous ground, a claim would focus on disproportionate impacts on economically disadvantaged groups. Social conditions of poverty and low-income would be the central focus given that issues with “economic” access are directly tied to a household’s ability to pay. However, income level was rejected as an analogous ground in *Thibideau v. Canada (Minister of National Revenue)*.²³² This is an area of unsettled law in Canada. Whether social conditions of poverty are analogous grounds of discrimination under section 15 of the *Charter* has yet to be considered by the Supreme Court of Canada.²³³ According to Martha Jackman and Bruce Porter, “lower court jurisprudence on the issue is mixed.”²³⁴

An investigation into the lived reality of claimants is required when undertaking an analogous grounds analysis.²³⁵ The “initial practice of considering each ground in isolation has given way to an intersectional approach.”²³⁶ At times, courts in various provinces and the Supreme Court of Canada have been “slightly more willing to recognize section 15 claims from single mothers and sole-support parents than from other disadvantaged groups.”²³⁷ Demonstrating disadvantage to particular groups who are affected by other enumerated grounds of discrimination may be the most persuasive avenue to pursue for a s. 15 challenge over high hydro rates. Individuals or groups that appear to be most vulnerable to energy poverty in rural Ontario include women, (including single mothers, the elderly), Indigenous

²³⁰ *Andrews v. Law Society of British Columbia* [1989] 1 S.C.R. 143.

²³¹ Because equality is a comparative concept, relevant “comparators” must be established; within the scope of the ground(s) of alleged discrimination claimed, a court may refine a claimant’s comparison, should it be insufficient or inaccurate. See *Law*, *supra* note 231 at paras. 6, 24, 56. See also Kerri Froc’s excellent discussion on the complexities associated with the Court’s evaluative framework for s. 15 (analogous ground). Kerri Froc, “Immutability Hauntings,” in Martha Jackman & Bruce Porter, eds, *Advancing Social Rights in Canada* (Toronto: Irwin Law Inc., 2014) 187-222 [Froc].

²³² See *Thibideau v. Canada (Minister of National Revenue)*, [1995] 2 SCR 627 (S.C.C.). According to Wayne MacKay the court concluded that it was not an analogous ground because it was not a personal characteristic. See MacKay, *supra* note 202 at 419.

²³³ Martha Jackman and Bruce Porter, “Rights-based Strategies to Address Homelessness and Poverty in Canada: The Charter Framework,” in Martha Jackman & Bruce Porter, eds, *Advancing Social Rights in Canada* (Toronto: Irwin Law Inc., 2014) 65-106 at 71 [Jackman & Porter]

²³⁴ Jackman & Porter, *ibid* at 87; See also Froc, *supra* note 231 at 197 - 202. Where plaintiffs have sought Charter protection due to their low-income or receipt of social assistance, the lower courts have provided some protection in a few cases. See MacKay, *supra* note 202 at 419-420.

²³⁵ As described in Jackman & Porter at *supra* note 233 at 91, the analogous grounds analysis outlined by the Supreme Court in *Miron v. Trudel*, [1995] 2 SCR 418 and *Corbiere*, *supra* note 228 “requires an in-depth inquiry into the lived reality – materials, political, economic and social – of the members of the groups whose equality rights are at issue.”

²³⁶ MacKay, *supra* note 202 at 415.

²³⁷ MacKay, *supra* note 202 at 421.

people and people with disabilities.²³⁸ It would be argued that the higher rates imposed on rural customers of Hydro One prevent them from enjoying equal access to a basic need, namely electricity and that access is particularly impeded for low-income households composed of members of groups protected under s. 15 of the *Charter*.

In terms of a remedy, the goal initially would not be the establishment of a new program as was the objective with the *Boulter* litigation in Nova Scotia.²³⁹ Rather the remedy requested would be non-discriminatory treatment of rural Hydro One customers within the framework of this pre-existing regulatory regime. In this regard, complainants could rely on the SCC decision in *Eldridge v. British Columbia (Attorney General)*.²⁴⁰ As Wayne MacKay explains in his commentary on *Eldridge*:

There is no suggestion that section 15 empowered the courts to order either the legislative or executive branch to create a program or a benefit scheme where none already existed. What *Eldridge* did establish is that if there is a scheme, it must be administered in accordance with equality rights, and omissions as well as actions can constitute violations.²⁴¹

4.2.2.2 Section 7

Various commentators assert that the 1989 Supreme Court decision in *Irwin Toy v. Quebec (AG)* left the door open for the recognition of “economic rights fundamental to human life or survival” as part of section 7 guarantees under the *Charter*.²⁴² While early Supreme Court decisions seemed to limit the ambit of section 7 rights to freedom from physical constraint and imprisonment, cases such as *Chaoulli v. Quebec (AG)* affirmed that s. 7 rights extend beyond the narrow confines of the criminal justice context.²⁴³ The right to life and security can be invoked when a person’s health is put at risk. In *Chaoulli*, the Supreme Court of Canada confirmed a lower court ruling that the right to life and security of the person was violated by long wait times for surgery under the provincial health care system.²⁴⁴ The

²³⁸ See Sections 2 to 4. As noted by Jackman & Porter, these groups are among those that have been identified by the CESCR as being disproportionately affected by poverty and homeless in Canada. See Jackman & Porter, *supra* note 233 at 91-92.

²³⁹ The objective of the *Boulter* litigation was ultimately to force the government to implement a low-income electricity program. See McNeil & Calderhead, *supra* note 171 at 256. See *Affordable Energy Coalition (Re)*, 2008 NSUARB 11, as upheld in *Boulter v. Nova Scotia Power Inc.*, 2009 NSCA 17

²⁴⁰ *Eldridge v. British Columbia (Attorney General)*, [1997] S.C.J. No. 86, [1997] 3 S.C.R. 624 (S.C.C.) [“*Eldridge*”].

²⁴¹ MacKay, *supra* note 202 at 413-414.

²⁴² MacKay, *supra* note 202 at 409, citing *Irwin Toy v. Quebec (AG)*, [1989] S.C.J. No. 36, [1989] 1 SCR 927 at 1003

²⁴³ Jackman & Porter, *supra* note 233 at 71

²⁴⁴ The majority of the Court found that the right to life and security of the person is violated by prolonged delays for surgery which increase a patient’s risk of irreparable injury and mortality and force many patients to suffer in pain to the extent that they cannot fully enjoy any real quality of life. See *Chaoulli v. Quebec (Attorney General)*, [2005] 1 SCR 791 at paras. 38-

Chaoulli decision is controversial for several reasons, but it established the “the connection between deprivations of the basic necessities of life and fundamental rights.”²⁴⁵ The 2011 decision in *Canada (AG) v. PHS Community Services Society (Insite)* also affirmed the proposition that State action that negatively affects a person’s health (mental and physical) “engages the right to security of the person”:

“[t]he Court reaffirmed that where a law increases a risk to health, this amounts to a deprivation of the right to security of the person and that ‘where the law creates a risk not just to the health but also to the lives of claimants, the deprivation is even clearer.’”²⁴⁶

More recently, *Criminal Code* provisions restricting activities around prostitution were struck down on the basis that they put prostitutes at unnecessary risk of physical harm. This was found to be a violation of the section 7 guarantee of the right to security of the person.²⁴⁷

The 2008 case of *Victoria (City) v. Adams*²⁴⁸ followed the same line of reasoning. A city bylaw prohibiting tent cities in public parks was found to expose the homeless to a “risk of serious harm including death from hypothermia,” constituting an infringement of section 7.²⁴⁹ The Court found that the prohibition constituted a *deprivation* (my emphasis) of the right to life, liberty and security of the persons protected under s. 7.²⁵⁰

45. The Court noted that not every difficulty rises to the level of adverse impact on security of the person. The impact “whether psychological or physical must be serious...” (at para. 123).

²⁴⁵ Mackay *supra* note 202 at 412 citing Lorne Sossin, “Towards a Two-Tier Constitution? The Poverty of Health Rights,” in Colleen Flood et al, eds, *Access to Care, Access to Justice: The Legal Debate Over Private Health Insurance in Canada* (Toronto: University of Toronto Press, 2006) at 161.

²⁴⁶ Jackman & Porter, *supra* note 233 at 71-72, citing *Canada (AG) v. PHS Community Services Society*, 2011 SCC 44 at para. 93.

²⁴⁷ *Canada (Attorney General) v. Bedford* 2013 SCC 72; See case discussion in Ian Green, *The Charter of Rights and Freedoms: 30+ Years of Decisions that Shape Canadian Life* (Toronto: James Lorimer & Co, 2014 at 258-260.

²⁴⁸ *Victoria - (City) v. Adams*, 2008 BCSC 1363 [*Adams*], aff’d by the British Columbia Court of Appeal in *Victoria – (City) v. Adams*, 2009 BCCA 172.

²⁴⁹ In *Adams, ibid*, the BC Superior Court found that “exposure to the elements without adequate shelter such as a tent tarpaulin or cardboard box is associated with a number of substantial risks to health including the risk of hypothermia, a potentially fatal condition...” (para 142). The court found that the city by-law violated section 7 and could not be saved by section 1.

²⁵⁰ The Court was clear in its ruling that the the Defendants do not seek positive benefits in this action and it is therefore not necessary for the Court to consider whether s. 7 includes a positive right to the provision of shelter. The Defendants were not seeking to have the City compelled to provide the homeless with adequate shelter (para. 119). The Court noted the majority judgment in *Gosselin v. Quebec (Attorney General)*, [2002] 4 S.C.R. 429 [*Gosselin*] which enunciated the principle that, that the rights under s. 7 were not positive rights; rather, they are intended to restrict the state’s ability to deprive people of life, liberty and security of the person. See *Adams supra* note 248 at para 117 and *Gosselin* at para. 81.

In *Adams* the British Columbia Superior Court considered Canada's international human rights obligations in interpreting the mean and scope of section 7 of the *Charter*.²⁵¹ The Court also referred to statements made by the Canadian government to international human rights supervisory bodies such as the CESCR. Canada acknowledged that it is obliged under the Covenant to not deprive persons of the basic necessities of life. Such a deprivation by the government would infringe s. 7 *Charter* rights to life, liberty and security of the person.²⁵² Given the above, a challenge under section 7 might bear fruit if it is framed as a deprivation of the basic right to access electricity, an essential need. The Court would not be asked to interpret section 7 as requiring positive programmatic action by government. It is clear from *Adams* that the Court did not want to stray into this territory.²⁵³

4.3 Re-visioning of Ontario's Electricity Support Programs

The Board established the Low-Income Energy Assistance Program (LEAP) following the Divisional Court ruling in *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*.²⁵⁴ More recently, the Minister of Energy asked the OEB to develop and implement the Ontario Electricity Support Program. This program was launched in late 2015.²⁵⁵ It may be possible to trigger a re-examination of these programs as well as rural rate protection via an intervention during an up-coming rate application before the Board, however, a re-design or re-visioning of these program would only be one element of a badly needed comprehensive strategy to address energy poverty in Ontario. Realistically, advocating for the establishment of an over-arching strategy would likely not be achievable via discrete litigation before the Board and energy poverty advocates would likely shy away from an approach that would put them at legal loggerheads with the Board just shortly after it established the OESP. Achieving this desired result is not a short-term proposition and will likely involve significant strategizing, policy appraisal and advocacy involving numerous stakeholders.

²⁵¹ The Court noted several decisions of the Supreme Court of Canada that have affirmed the informative value of international human rights norms to assist with interpretation of Charter protections. See para 95 of *Adams*.

²⁵² Canada's response to a question from the CESCR in 2003 is noted by Ross J in the *Adams* decision: "While the guarantee of security of the person under section 7 of the Charter might not lead to a right to a certain type of social assistance, it ensured that persons were not deprived of the basic necessities of life." Other statements by Canada to the CESCR are also noted by the court. See *Adams*, *supra* note 248 at paragraphs 98 and 99.

²⁵³ *Adams*, *supra* note 248 at paras. 75 to 154.

²⁵⁴ *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, 2008 CanLII 23487 (ON SCDC).

²⁵⁵ Ontario Energy Board, News Release: New Program Helps Low-Income Ontarians with Electricity Bills Ontario Electricity Support Program (OESP) Now Accepting Applications, November 2, 2015

CONCLUSION

The Ontario government is violating the rights of rural Ontario customers to access energy that is affordable. Structural inequality is embedded in Ontario's electricity distribution system. The Ontario Energy Board, through the exercise of its rate-setting powers, has prescribed distribution rates for Hydro One rural low-density customers that are significantly higher than rates for other Hydro One residential customers or customers of other local utilities. The rate mitigation programs that are in place, are not, as currently designed, sufficient to ensure that rural customers, particularly low-income customers, pay a reasonable proportion of their household income on electricity and avoid energy poverty. Unaffordable electricity bills faced by Hydro One rural customers is also affecting the realization of several other human rights of including the right to health, the right to water and sanitation, and even the right to life.

Back in 1980, Premier Bill Davis made a prescient statement. He said that the rural-urban inequity with respect to electricity bills would "become increasingly burdensome" to rural Ontarians due to continuing urbanization and a decline in the rural customer base. His prediction was correct and the inequity in energy affordability for rural customers of Hydro One will only continue to increase if steps are not taken by Ontario to address its international human rights obligations and level the playing field.

However, addressing human rights obligations with respect to economic access to electricity demands more from the government beyond this kind of structural adjustment. In order to ensure economic access for all, in particular vulnerable groups, a measured and targeted energy poverty policy and strategy needs to be adopted and implemented by the government. Financial resource constraints are surely not an excuse for failing to fully realize the right of access to energy for Ontarians. Some proposed avenues for seeking enforcement of international human rights obligations are outlined in this research paper.

A significant information and knowledge gap exists with respect to energy poverty incidence and the impacts on individuals and families in rural and other parts of Ontario. It is hoped that this research paper has shone a light on this important topic and provides a foundation to move the agenda forward.

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APPENDIX ONE: Comparative data - Distribution and Transmission Charges for Residential Customers of Hydro One Networks Inc.

Table 1.1

Examples of Rural Rate Assistance (RRA) Monthly Credit amounts provided under the Ontario *Power Corporation Act* and the Rural or Remote Rate Protection Credit under Regulation 442/01 pursuant to the *Ontario Energy Board Act, 1998*

Year	R2 (RRA credit in \$/month)	R1 (RRA credit in \$/month)
1981	3.00	3.00
1986	9.95	9.95
1987	13.70	13.70
1988	13.05	13.05
1989	14.52	14.52
1991	15.08	13.15
1999	28.50	

Year	(RRRP credit in \$/month)
2005	28.50
2006	28.50
2007	28.50
2008	28.50
2009	28.50
2010	28.50
2011	28.50
2012	28.50
2013	28.50
2014	28.50
2015	31.50
2016	31.50

Sources: Ontario Energy Board, Decisions and Rate Orders, Hydro One Networks Inc.; Ontario Hydro, Monthly Rates and Comparative Bills (1981 – 1988). Ontario Hydro ceased publication of this information in the early 1990s. As a result, RRA credit amounts from 1992-1998 were not readily available. See also Table 1.3

Table 1.2: Sample of 2015 Retail Transmission Rates for Residential Customers of Various Local Utilities including Hydro One Networks Inc.

As discussed in Section 1, transmission charges make up a part of the delivery portion of a customer's electricity bill.

Distribution Company	Network Service Rate per kWh (A)	Line & Transformation Connection Rate per kWh (B)	Both rates combined per kWh (A + B) = C	Transmission charges for 1,000 kWh (C x 1,000)
ELK	0.60 cents	0.42 cents	\$1.02	\$10.20
Bluewater Power	0.66 cents	0.58 cents	\$1.24	\$12.40
Tillsonburg Hydro Inc.	0.69 cents	0.56 cents	\$1.25	\$12.50
Kingston Hydro Corp.	0.71 cents	0.56 cents	\$1.27	\$12.70
Veridian	0.68 cents	0.47 cents	\$1.15	\$11.50
Hydro One:				
Residential – Low Density (R2)	0.65 cents	0.46 cents	\$1.11	\$11.10
Residential – Medium Density (R1)	0.68 cents	0.48 cents	\$1.16	\$11.60
Residential – Urban Density (UR)	0.69 cents	0.49 cents	\$1.18	\$11.80

Sources: OEB Decisions and Rate Orders

Table 1.3 Changes to the Monthly Distribution Service Charge for Hydro One R2, R1 and UR Classes of Residential Customers (year round) (2005 – 2016)

Note: This table lists the base distribution service charge in dollars under decisions and rate orders of the Ontario Energy Board. It does not include other ancillary charges.

Column 2 shows the rate set by the Board for the R2 – low density class absent the credit for rural or remote rate assistance (RRRP).

Column 3 shows the R2 service charge after the RRRP credit has been applied (if the author was able to confirm amount).

Rate Period	R2 – Low Density (\$ / month)	R2 – Low Density (minus the RRRP credit) (\$ / month)	R1 – Medium density (\$ / month)	UR –High (urban) density (\$ / month)
2005	50.12	(- 28.50) = 21.62	15.99	11.82
2006 - 2008	56.80	(- 28.50) = 28.30	18.30	13.60
2009*	54.91	(- 28.50) = 26.41	20.51	15.54
2010	52.33	(- 28.50) = 23.83	17.88	12.91
2011 - 2012	55.69	(- 28.50) = 27.19	19.72	14.52
2013	56.98	(- 28.50) = 28.48	19.93	12.58
2014	57.61	(- 28.50) = 29.11	20.15	12.72
2015	65.52	(- 31.50) = 34.02	26.03	19.07
2016**	72.86	(- 31.50) = 41.36	30.11	22.29

*the amount set by the OEB in its 2009 decision includes the smart meter funding adder.

** varies slightly from the figures on the Hydro One web site

Source: Ontario Energy Board Decisions and Rate Orders

Table 1.4 The Monthly Distribution Service Charge for Hydro One Residential Customers (year round) and comparative charges for residential (non-seasonal) customers of other Local Distribution Companies (data for 2015)

Hydro One Network Inc.

R2- low density	\$34.02 (with the RRRP credit)
R1- med. density	\$26.03
UR-urban (high density)	\$19.07

Other Local Distribution Companies

Lowest	\$7.17
Highest	\$34.98
Median*	\$21.00
Average*	\$16.00

*calculation for median and average has been rounded.

Sources: OEB Decisions and Rate Orders for Hydro One Network Inc.; OEB, Distributors - Rates Database from Tariffs, 2015 (Excel Spreadsheet)

Table 1.5 Changes to the Variable Distribution Charge (per kWh) for Hydro One R2, R1 and UR classes of residential year-round customers.

Rate Period	R2 – Low Density (cents/kWh)	R1 – Medium density (cents/kWh)	UR –High (urban) density (cents/kWh)
2005	1.71	2.10	1.61
2006 - 2008	1.93	2.37	1.82
2009	2.65	2.61	2.25
2010	3.41	3.25	2.87
2011 - 2012	3.60	3.31	2.92
2013	3.68	3.35	2.53
2014	3.72	3.39	2.56
2015	4.24	3.31	2.08
2016	4.26	2.99	1.62

Sources: OEB Decisions and Rate Orders, Hydro One Networks Inc.

Commentary:

-Low density (R2) customers: In 2005, this charge was 1.7 cents/kWh. By 2010 it had doubled. With the Board’s rate order for 2016-2017, the charge had increased 150% relative to 2005.

-Medium density (R1): These customers faced a higher volumetric rate than R2 customers back in 2005 (2.1 cents/kWh). There were progressive increases to the R1 rate from 2005 to 2014 but they were not as significant as compared with the R2 customer class (an increase of roughly 61 percent over this period). R1 rates were reduced by the OEB in 2015, and again for 2016-2017. Overall, as of 2016-2017, the R1 rate had increased by 42% relative to 2005.

-High density (urban customers): Customers in the UR class paid slightly less than R2 customers back in 2005 (1.61 cents/kWh). The rate for UR customers peaked in 2011 and has been on a downward trend ever since. For the 2016-2017 period, the rate is 1.62 cents/kWh, essentially the same rate paid by this same class of customers back in 2005.

Note: This table lists the base variable distribution rates / kWh (rounded off). These rates do not include other charges mandated by the Board such as rate riders, the smart meter charge, etc.

Table 1.6. The Variable Distribution Charge (per kWh) for Residential Year-round Customers of Other Local Distribution Companies (Selected Aggregate Data) – 2015

Lowest	0.81 cents / kWh
Highest	2.48 cents / kWh*
Median	1.28 cents / kWh
Rate for more than 80 percent of LDCs	< 2.00 cents / kWh

Note: This table lists the base variable distribution rates / kWh. These rates do not include other charges mandated by the Board such as rate riders, the smart meter charge, etc.

*Excludes the rate for Algoma Power Corporation which receives funding under Regulation 442/01

Source: OEB, Distributors - Rates Database from Tariffs (2015) (Excel Spreadsheet)

APPENDIX TWO: Exploring higher electricity consumption of Hydro One rural customers

According to the OEB, a typical residential electricity customer in Ontario uses 750 kWh of electricity each month.²⁵⁶ However, residential customers of Hydro One use significantly more (the average for all three residential year-round rate classes in 2015 was 954 kWh / month.²⁵⁷ Average electricity consumption is highest for low-density customers specifically. While the Ministry of Energy has indicated that Hydro One low-density (R2) customers use on average 1,000 kWh per month,²⁵⁸ Hydro One puts this figure at closer to 1200 kWh a month.²⁵⁹ These consumption patterns are fairly consistent with what we see for customers of local utilities in northerly communities. For example, in 2015, residential customers of Chapleau Public Utilities Corporation used over 1,000 kWh on average.²⁶⁰

The reasons for higher or lower household electricity consumption involve a number of different factors, including the number of people in a household and their usage patterns. However, this section of the paper explores differences that are particular to rural Ontario which may factor into higher consumption (and therefor higher bills) for rural Hydro One customers.

A heavy reliance on electricity for space and water heating in rural areas is likely one of the key reasons behind these higher consumption rates.

Heating with Electricity:

Electric space heating was heavily promoted in Ontario in the 1980s. Homeowners were encouraged to switch from heating oil to electricity and electricity prices back then made it an affordable option.²⁶¹ Today, 75% of households in Ontario use natural gas as their primary energy source for heating, but 14% still use the more expensive option, electricity. This equates to roughly 684,251

²⁵⁶ OEB, Defining Ontario's Typical Electricity Customer, April 4, 2016, EB-2016-0153

²⁵⁷ Across all three residential rate classes for Hydro One, the average is 954 kWh / month. See OEB, 2015 Yearbook of Electricity Distributors (2016) at 80.

²⁵⁸ Confirmatory email from Lou Rinaldi, MPP, dated September 30, 2016.

²⁵⁹ Hydro One's 2017 Forecast Delivery Costs states monthly consumption averages as follows: Low-density R2 - 1,190 kWh; R1 (medium density) -- 941 kWh; and UR -- 783 kWh. See Hydro One Networks Inc., Distribution 2015-2017 Rates Application -- 2017 Draft Rate Order, filed October 7, 2016. [EB-2016-0081], Exhibit 2 at 3-4. See also Ontario Federation of Agriculture, Long-Term Energy Plan Policy for Natural Gas and Electricity, no date at 2. Monthly consumption figures were calculated by dividing the total forecasted consumption for the R2 rate class by the number of R2 customers. This amount was then divided by 12 to obtain a monthly average rate of consumption.

²⁶⁰ The average residential customer of Chapleau Public Utilities Corporation consumed 1080 kWh/month in 2015. Other residential customers in the north use just over 900 kWh monthly on average. See (Espanola Regional Hydro Distribution Corporation - 901 kWh/ month), Fort Francis Power Corporation – 920 kWh/month, Hearst Power Distribution Company - 914 kWh/month). See OEB 2015 Yearbook of Electricity Distributors (2016).

²⁶¹ The province launched a new energy strategy in 1980 and the Board of Industrial Leadership and Development (BILD) program in 1981. There was an increased push to expand the use of electricity and replace “costly oil in the transportation and space heating sectors. See Ontario Hydro, Annual Report (1980), at 4, 6

households in Ontario.²⁶² The extent of rural dependence on electricity for some or all of a household's heating requirements is not known. Recent data collected by Statistics Canada and Natural Resources Canada on home heating practices of Canadian households is not segregated by region or by rural or urban areas.²⁶³

There is an over-reliance on electricity for heating in First Nations and Métis communities.²⁶⁴ This likely holds true for most of northern and southern rural Ontario. Energy choices for heating and hot are more limited in rural zones. Eighty percent of rural Ontario does not have access to natural gas.²⁶⁵ In 2016, the OEB acknowledged that reliance on electricity for home heating is more common for Hydro One customers in low density rural areas. Data compiled by the United Way of Grey Bruce indicates that a significant percentage of Hydro One customers in Bruce and Grey Counties who sought emergency assistance for bill arrears in 2016 rely on electric heat: 31% of R2 (low-density) customers in arrears; 34% of R1 (medium density) customers in arrears.²⁶⁶

Heating with wood may be a more affordable option compared to electricity but cutting, storing and handling wood is likely beyond some households, especially those experiencing ill-health or mobility issues due to age, health conditions or disability.

Research in the U.K. has determined that the system used for water and space heating can be a significant driver for energy poverty. Households that use electricity rather than gas are 2.5 times more

²⁶² See Statistics Canada, *Households and the Environment: Energy Use* (Ottawa: author, 2011). See Table 2 (Type of main heating fuel used, by province, 2011) at 19. The 14% figure for households in Ontario relying on electricity as their main heating fuel translates into roughly 684,251 households using electric heat out of a total of 4,887,510 private households (2011 figure). See Ministry of Finance, 2011 Census Highlights: Fact Sheet 5 at 1.

²⁶³ The report indicates that there are also issues the reliability of the data. See Natural Resources Canada, *Survey of Household Energy Use: 2011 - Detailed Statistical Report* (Ottawa, author, 2014). The author asked Natural Resources Canada to provide segregated data for rural Ontario. The statistics and analysis division responded that the data could not be provided "due to the quality of the data at that disaggregation and also due to confidentiality concerns." Email received by the author from the Statistics and Analytics Division, Natural Resources Canada, Nov. 3, 2016.

²⁶⁴ Ontario Energy Board, *Report of the Board: Developing the Ontario Energy Support Program*, (Toronto: author, 2014), EB-2014-0227

²⁶⁵ Rob Ferguson, "Is natural gas the savior for rural Ontarians struggling with steep hydro bills?," *Toronto Star*, October 8, 2016, citing statistics from the Ontario Federation of Agriculture. See also approved service areas of Ontario's natural gas utilities (Enbridge Gas Distribution Inc., Natural Resource Gas Limited and Union Gas Limited. See also Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 41st Parl., 2nd Sess., Standing Committee on Justice Policy (Ontario Rebate for Consumer's Act), 3 October 2016 (Francesca Dobbyn) at JP-26.

²⁶⁶ OEB, *Report of the Board: Defining Ontario's Typical Electricity Customer* [EB-2016-0153] April 14, 2016, at 3. In the report, the Board also acknowledged that geographic variation will always be a factor in a province as large as Ontario. The Board noted that the typical customer of some distributors, particularly those in the north and those whose customers do not have access to natural gas and use electricity for heating, will have higher consumption patterns than those elsewhere in the province (at 3). With regard to Hydro One customers in arrears 2016 in Bruce and Grey Counties who rely on electric heat, see United Way of Bruce Grey, *Selected data on electricity customer arrears (Hydro One)*, 2016, *supra* note 102. It should be noted that these percentages are based on a relatively small data set. Anecdotal evidence discussed in Section 2 of the paper supports the contention that there is a heavy reliance on electricity for heating in rural Ontario, including supplemental heating with electricity in conjunction with heating with wood.

likely to be energy poor.²⁶⁷ In Ontario, households that rely on electricity for space heating would be expected to have considerable bills during the winter months (higher in colder regions). Baseboard electrical heating would account for 44% of a household utility bill.²⁶⁸ Estimated expenditures for electric space heating alone in a household (without another heat source) could range from between \$350 and \$600 per month, depending the size and age of a residence and the number of occupants.²⁶⁹

The age, condition and energy efficiency of a residence would affect electricity consumption for heating. A 2003 study found that the rural housing stock in Canada is made up of significant proportions of older, pre 1934 residential dwellings (29%).²⁷⁰ There is a lack of new rental housing. There are very little rental housing options in rural areas. Rental housing was characterized by low vacancies, relatively poorer conditions and higher operating costs.” Furthermore, lower-income households (homeowners and tenants) tended to live in older housing units which were also poorly insulated and had high heating and utility costs.²⁷¹

Electricity for Hot Water:

After space heating, water heating is the most energy intensive aspect of a household’s energy budget, accounting for 19% of overall energy consumption.²⁷² Electric water heaters have relatively poor energy performance. An electric water tank consumes 10 -12 kilowatts of electricity a day. A high performance electric water tank (50 Gal) consumes 385 kWh per month. This would account for a significant proportion of a household electricity bill, particularly in rural areas where natural gas is not an option.²⁷³

²⁶⁷Great Britain: Department of Energy and Climate Change, Fuel Poverty: a Framework for Future Action (Analytical Annex), 2013 at 17.

²⁶⁸ Hydro Ottawa, Heat Smarter with Electric Baseboard Heaters, accessed Nov. 2, 2016.

²⁶⁹ These figures are based on Toronto Hydro rates which are lower than rates paid by Hydro One low-density R2 customers due to differences in distribution charges. The lower figure is for an older, two bed room house with three householders (*space heating only*) based on Toronto Hydro rates. See Enbridge Gas Distribution, Energy Savings Calculator. Accessed October 31, 2016. Higher electricity consumption associated with electricity usage for space heating is discussed in Section 2 of the paper. See also the energy poverty analysis (Scenario 2) in Appendix Three. It should be added that electricity is consumed when using other space heating options (e.g. furnace fans, heat pumps, etc.)

²⁷⁰The rural housing stock is made up of significant proportions of older, pre 1934 residential dwellings (29%). There is a lack of new rental housing. There are very little rental housing options in rural areas and those that are available are characterized by low vacancies, relatively poorer conditions and higher operating costs. See Bruce, *supra* note 80 at iii – iv, 22, 32.

²⁷¹ See Bruce, *supra* note 80 at 21-23.

²⁷² Natural Resources Canada, Energy-efficient products – product information – water heaters (Natural Resources Canada online: accessed November 19, 2016). The U.S. Environmental Protection Agency estimates that water heaters account for between 13 and 17 percent of household energy usage. See Environmental Protection Agency, Energy Star – Residential Water Heaters: Final Criteria Analysis at 1 [Environmental Protection Agency, 2008]

²⁷³See [Environmental Protection Agency, 2008, *ibid* at 2,9. See also Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 41st Parl., 2nd Sess., Standing Committee on Justice Policy (Ontario Rebate for Consumer’s Act), 3 October 2016 at JP-25 (Francesca Dobbyn). During her presentation to the Standing Committee, Ms. Dobbyn noted that electric water tanks consume roughly 10-12 kWh of electricity daily. In areas without access to natural gas, there are no other options for hot water. She also described how she had been trying to assist a rural customer of Hydro One with a \$20,000 electricity bill. The customer has electric hot water as no other options are available for rural communities. See JP-16.

Specific data on the number of rural households that rely on electricity for warmth and hot water is not available. It is clear that more data is needed on the energy mix for rural Ontarians so that we might have a better understanding of its role in exacerbating rural energy poverty.

APPENDIX THREE – Energy Poverty Analysis for Hydro One Low-density (R2) Customers

Introduction

An analysis was performed to determine whether there is an energy affordability gap for Hydro One low-density (R2) customers who are low-income.

Table 5.1 provides the analysis for low-income households who are paying an average electricity bill for low-density (R2) customers (summer-time scenario)

Table 5.2 provides an analysis for low-income households that rely on electric heat for some or all of their heating needs

Both components of this analysis take into account applicable credits in effect as of November 1, 2016, and the new measures (8% rebate and increased RRRP credit) that took effect on January 1, 2017.

Table 5.1: Energy Poverty Gap Analysis

This analysis compares the income of low-income households with electricity expenditures for Hydro One low-density (R2 customers)

The intent of the analysis is to determine whether or not these households are experiencing energy poverty and if so, whether it is significant or not.

Monthly electricity bill amounts are compared against total monthly income and the 6% energy poverty threshold.

The section entitled “rates and credits in effect Nov. 1, 2016” illustrates the monthly electricity bill for a low-income household with applicable rates/credits in effect at that time, namely:

- The monthly Rural or Remote Rate Protection (RPPP) credit available to all low-density customers as of Nov. 1, 2016; and,
- Monthly credits available to eligible low-income households via the Ontario Electricity Support Program (OESP) as of Nov. 1, 2016. The OESP credits that are applied are the regular OESP monthly credits.

The next section of the table illustrates the monthly electricity bill for a low-income household with the new measures (increased RPPP credit and 8% rebate) in effect as of Jan. 1, 2017. The OESP credit remains unchanged. See section entitled, “With new changes in effect January 1, 2017.”

Three Scenarios for Low-income Households are presented here as follows:

- Low-Income as defined by Low-Income Measure – AT cut-offs²⁷⁴
- Households receiving Ontario Works (total benefit income)²⁷⁵
- Households receiving Ontario Disability Support Program benefits (total benefit income)²⁷⁶

The bills are based on an estimate of monthly consumption for these households and generally reflect average consumption for R2 customers. Various data points were reviewed and analyzed to justify the per energy consumption estimates used in this analysis.

Scenario:

- summertime: no AC; two ceiling fans, 2 space fans, dehumidifier and electric hot water heating)
- does not include power for sump pump or well pump

Note: This cannot be considered a complete picture of a household’s energy expenditures as it only accounts for electricity costs.

²⁷⁴ Low-Income Measure-After Tax thresholds were estimated by Kaylie Tiessen. They are representative of the LIM-AT in 2014. See Kaylie Tiessen, *Ontario’s Social Assistance Poverty Gap* (Toronto: Canadian Centre for Policy Alternatives, 2016) at 13

²⁷⁵ Total benefits income estimates presented at page 13 in Kaylie Tiessen, *Ontario’s Social Assistance Poverty Gap* (Toronto: Canadian Centre for Policy Alternatives, 2016). They are representative of for 1989 to 2013.

²⁷⁶ *Ibid*

Table 5.1

Key Parameters and statistics						Rates and credits in effect Nov. 1, 2016			With new changes in effect Jan. 1, 2017			
# in Household	LIM-AT cut-off **	Annual Income for sample	Monthly Income	30% of monthly income	6% of monthly income	Monthly Bill (- \$31.50 (RRRP))	With OESP Credit degree of energy poverty	\$ amount above 6% cut-off	8% rebate	Extra RRRP Credit & OESP	Total (with all rebates / credits applied) degree of energy poverty	\$ amount above 6% cut-off
1	\$20,811	\$18,000	\$1500.00	\$450.00	\$90.00	\$262.22 (900 kWh)	(-\$20.00)=\$242.22 Severe energy poverty (17.5% of monthly income)	\$152.22	-\$30.17 =\$232.05	-\$27.40 - \$20.00 =\$184.65	\$184.65 Somewhat severe energy poverty (12.3% of monthly income)	\$94.65
2	\$29,431	\$25,000	\$2,083	\$624.00	\$124.98	\$285.79 (1,000 kWh)	(-\$30.00)=\$255.79 Somewhat severe energy poverty (12.2% of monthly income)	\$130.81	-32.88 =\$252.79	-\$27.40 - \$30.00 =\$195.51	\$195.51 Marginal energy poverty (9.3% of monthly income)	\$80.53
3	\$36,064	\$33,000	\$2750.00	825.00	\$165.00	\$285.79 (1,000 kWh)	(-\$30.00)=\$255.79 Marginal energy poverty (9.3% of monthly income)	\$130.81	(-\$32.88) =252.79	(-\$27.40) (-\$30.00) =195.51	\$195.51 Marginal energy poverty (7.1% of monthly income)	\$40.51
4	41,622	\$38,000	\$3166.00	\$950.00	\$189.96	\$297.57 (1050 kWh)	(-\$34.00) \$263.57 Marginal energy poverty (8.3% of monthly income)	\$73.61	(-\$34.23) =263.34	(-\$27.40) (-\$34.00) =211.94	\$211.94 Marginal energy poverty (6.7% of monthly income)	\$21.98

Table 5.1 continued

Key Parameters and statistics						Rates and credits in effect Nov. 1, 2016			With new changes in effect Jan. 1, 2017			
# in in Household	Type of Benefits	Annual (Total Benefit Income (2014)	Monthly Income	30% of monthly income	6% of monthly income	Monthly Bill (with RRRP deduction of \$31.50)	With OESP Credit degree of energy poverty	Amount over 6% cut-off	8% rebate	RRRP Credit & OESP	Total with proposed & credits and Rebates degree of energy poverty	Amount over 6% cut-off (gap)
1	Ontario Works	\$8510.00	\$709.16	\$212.75	\$42.55	\$262.22 900 kWh	(-\$20.00)=\$242.22 Very Extreme energy poverty (34% of monthly income)	\$199.67	(-\$30.17) =\$232.05	(-\$27.40) (-\$20.00) =\$184.65	\$184.65 Very Extreme energy poverty (26% of monthly income)	\$142.10
2 (single parent, one child)	Ontario Works	\$19,045	\$1,587.	\$476.13	\$95.22	\$285.79 1,000 kWh	(-\$30.00)=\$255.79 Severe energy poverty (16.11% of monthly income)	\$156	(-32.88) =\$252.91	(-\$27.40) (-\$30.00) =\$195.51	\$195.51 Marginal energy poverty (12.3% of monthly income)	\$100.29
3 (Couple, one child)	Ontario Works	\$25,936	\$2161.33	\$648.40	\$129.67	\$285.79 1,000 kWh	(-\$30.00)= \$255.79 Marginal energy poverty (11.8% of monthly income)	\$126.14	(-\$32.88) =252.91	(-\$27.40) (-\$30.00) =195.51	\$195.51 Marginal energy poverty (9% of monthly income)	\$65.84

Table 5.1 continued

Key Parameters and statistics						Rates and credits in effect Nov. 1, 2016			With new changes in effect Jan. 1, 2017			
# in Household	Type of Benefits	Annual Income (Total Benefit Income) (2014)	Monthly Income	30% of monthly income	6% of monthly income	Monthly Bill (-RRRP credit - \$31.50)	With OESP Credit degree of energy poverty	Amount over 6% cut-off (=\$Gap)	8% rebate	RRRP Credit & OESP	Total with all proposed & existing credits and Rebates degree of energy poverty	Amount over 6% cut-off (=\$Gap)
1	Ont. Disability Support Program (ODSP)	\$14,028	\$1,169	\$350.70	\$70.14	\$262.22 (900 kWh)	(-\$20.00) \$242.22 Extreme energy poverty (20.7% of monthly income)	\$172.08	Minus \$30.17 =\$232.05	Minus -\$27.40 -\$20.00 =\$184.65	\$184.65 Severe energy poverty (15.8% of monthly income)	\$114.51
2 (single parent, one child)	ODSP	\$26,170	\$2,180.83	\$654.25	\$130.80	\$285.79 (1,000 kWh)	(-\$30.00) \$255.79 Marginal energy poverty (11.7% of monthly income)	\$124.99	-32.88 =\$252.79	-\$27.40 -\$30.00 =\$195.51	\$195.51 Marginal energy poverty (9% of monthly income)	\$64.71
4 (Couple, 2 children)	ODSP	\$33,475	\$2789.58	\$836.87	\$167.37	\$297.57 (1050 kWh)	(-\$38.00) =\$259.57 Marginal energy poverty (9.3% of monthly income)	\$92.20	-\$34.23 =\$263.34	-27.40 -38.00 =197.94	\$197.94 Marginal energy poverty (7% of monthly income)	\$30.57

Table 5.2: Energy Poverty Gap Analysis -- GREATER ENERGY INTENSITY SCENARIO (for households that use electric heat for some or all of their heating needs)

This analysis presents income amounts for different low-income households along with sample monthly electricity bills for Hydro One Low-density (R2 customers) that rely on electric heat for some or all of their heating needs.

The intent of the analysis is to show whether or not low-income households that use electric heat are in energy poverty. Monthly electricity bill amounts are compared against total monthly income and the 6% energy poverty threshold.

Scenarios for Low-income Households of different sizes are presented here.

- Low-Income as defined by Low-Income Measure cut-offs²⁷⁷
- Households receiving Ontario Disability Support Program benefits (total benefit income)²⁷⁸

The bills are based on an estimate of monthly consumption for these households for different heating scenarios. Estimates were derived from various data points and could be conservative values for R2 customers who use electric heat.

The section entitled “rates and credits in effect Nov. 1, 2016” illustrates the monthly electricity bill for a low-income household with applicable rates/credits in effect at that time, namely:

- The monthly Rural or Remote Rate Protection (RPPP) credit available to all low-density customers; and,
- Monthly credits available to eligible low-income households via the Ontario Electricity Support Program (OESP). Households that use electric heat (as well as Aboriginal households and households that have a family member who relies on a medical advice that uses electricity) receive a larger credit (in \$) than other low-income households.
-

The next section of the table illustrates the monthly electricity bill for a low-income household with the new measures (increased RPPP credit and 8% rebate) in effect as of Jan. 1, 2017. The OESP credit remains unchanged. See section entitled, “With new changes in effect January 1, 2017.”

Note: This cannot be considered a complete picture of a household’s energy expenditures as it only accounts for electricity costs.

²⁷⁷ Low-Income Measure-After Tax thresholds were estimated by Kaylie Tiessen. They are representative of the LIM-AT in 2014. See Kaylie Tiessen, *Ontario’s Social Assistance Poverty Gap* (Toronto: Canadian Centre for Policy Alternatives, 2016) at 13

²⁷⁸ Total benefits income estimates presented at page 13 in Kaylie Tiessen, *Ontario’s Social Assistance Poverty Gap* (Toronto: Canadian Centre for Policy Alternatives, 2016). They are representative of for 1989 to 2013.

Table 5.2

ONE PERSON HOUSEHOLD Scenario with 50% of home heated by electricity (two baseboard heaters) – temperature 19-21 degrees C – estimated monthly bill of \$486.10 incl. HST					Rates and credits in effect Nov. 1, 2016			With new changes in effect Jan. 1, 2017				
Income Level	Annual Income	Monthly Income	30% of monthly income	6% of monthly income	Monthly Bill (- \$31.50 (RRRP))	With OESP Credit (energy intensive) degree of energy poverty	\$ amount above 6% cut-off (gap)	8% rebate	Extra RRRP Credit & OESP	Total (with all rebates / credits applied) degree of energy poverty	\$ amount above 6% cut-off (gap)	
Low-income acc'ing to LIM-AT	\$18,000	\$1500.	\$450.00	\$90.00	\$486.10 (1850kWh)	(-\$30.00)= \$456.10 Very extreme energy poverty (30% of mo. Income)	\$366.10	-\$55.92 =\$430.18	-\$27.40 -\$30.00 =\$372.78	\$372.78 Extreme energy poverty (24.9% of monthly income)	\$282.78	
Rec'ing ODSP	\$14,028	\$1,169	\$350.70	\$70.14	\$486.10 (1850 kWh)	(-\$30.00)=\$456.10 Very extreme energy poverty (30% of monthly income)	\$385.96	-\$55.92 =\$430.18	-\$27.40 -\$30.00 =\$372.78	\$372.78 Very Extreme energy poverty (31.9% of monthly income)	\$302.64	
ONE PERSON HOUSEHOLD - Scenario with 100% of home heated by electricity (three baseboard heaters) – temp. 15-18 C. Est. monthly bill of \$627.50 incl. HST.												
Low-income acc'ing to LIM-AT	\$18,000	\$1500.	\$450.00	\$90.00	\$627.50 (2,4590 kWh)	(-\$30.00)=\$597.50 Very Extreme energy poverty (39.8% of monthly income)	\$507.5	-\$72.19 =\$555.31	(-\$27.40) (-\$30.00) =\$497.91	\$497.91 Very extreme energy poverty (33% of monthly income)	\$407.91	
Rec'ing ODSP	\$14,028	\$1,169	\$350.70	\$70.14	\$627.50 (2,4590 kWh)	(-\$30.00)=\$597.50 Very Extreme energy poverty (51% of monthly income)	\$527.36	-\$72.19 =\$555.31	(-\$27.40) (-\$30.00) =\$497.91	\$497.91 Very extreme energy poverty (42.5% of monthly income)	\$427.50	

Table 5.2 continued

THREE PERSON HOUSEHOLD (COUPLE WITH ONE CHILD) Scenario with 50% of home heated by electricity (two baseboard heaters) – temperature 19-21 degrees C – estimated monthly bill \$ incl. HST					Rates and credits in effect Nov. 1, 2016			With new changes in effect Jan. 1, 2017			
Income Level	Annual Income	Monthly Income	30% of monthly income	6% of monthly income* *energy poverty benchmark	Monthly Bill (-\$31.50 RRRP)	With OESP Credit (energy intensive) degree of energy poverty	\$ amount above 6% cut-off (GAP)	8% rebate	Extra RRRP Credit & OESP	Total (with all rebates / credits applied) degree of energy poverty	\$ amount above 6% cut-off (GAP)
ODSP	\$33,475	\$2789.58	\$836.87	\$167.37	\$525.45 (2000 kWh)	(-\$45.00) =\$480.45 Severe energy poverty (17.22% of monthly income)	=\$313.06	-\$81.41 =\$444.04	-27.40 -45.00 =\$371.64	=\$371.64 Somewhat Severe energy poverty (13.3% of monthly income)	\$204.27
FOUR PERSON HOUSEHOLD – (COUPLE WITH FOUR CHILDREN - Scenario with 100% of home heated by electricity (four baseboard heaters) – temp. 15-18 C. Est. monthly bill of \$ incl. HST.											
Low-income acc'ing to LIM-AT	\$38,000	\$3166.00	\$950.00	\$189.96	\$804.24 (3200 kWh)	(-\$50.00) =\$754.24 Extreme energy poverty (24% of monthly income)	\$564.28	-\$92.52 =\$711.72	-27.40 -50.00 =\$634.42	=\$634.42 Extreme energy poverty (20% of monthly income)	\$444.36