

June 22, 2016

VIA EMAIL

Laurel Ross
Acting Commission Secretary
BC Utilities Commission
6th Floor 900 Howe Street
Vancouver, BC V6Z 2N3



Reply to: Sarah Khan
skhan@bcpiac.com
Ph: 604-687-4134

Our file: 7615

Dear Ms. Ross:

**Re: BC Hydro 2015 Rate Design Application Module 1
Information Request Responses of BCOAPO *et al.***

We write to file responses to the following parties' Information Requests to BCOAPO in the above noted proceeding:

1. British Columbia Utilities Commission (BCUC)
2. BC Hydro and Power Authority (BC Hydro)
3. BC Sustainable Energy Association and Sierra Club of BC (BCSEA)
4. Commercial Energy Consumers Association of British Columbia (CEC)
5. Movement of United Professionals (MoveUp)
6. Zone II Ratepayers Group (Zone II)

Please note that some of our responses contain links to various documents. We have indicated when links are replicated elsewhere in the responses.

Please let us know if you have any questions.

Sincerely,

BC Public Interest Advocacy Centre

Sarah Khan & Erin Pritchard
Barristers and Solicitors

- c. Tom Loski, Chief Regulatory Officer, BC Hydro
Registered participants

Encl.

**British Columbia Old Age Pensioners Organization et al.
Responses to BC Hydro and Power Authority
Information Request No. 1 on BCOAPO Evidence**

June 22, 2016

**British Columbia Hydro and Power Authority
2015 Rate Design Application
Project No. 6398781**

**1.0 Reference: General
Exhibit C2-12**

“After receiving my undergraduate degree in 1975 (Iowa State University), I obtained further training in both law and economics. I received my law degree in 1981 (University of Florida).” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 7/341, lines 17 to18).

- 1.1 Please advise whether Mr. Colton is qualified to practice law in any Canadian jurisdiction and, if so, please state which jurisdiction(s).

RESPONSE

No.

- 1.2 Please advise whether Mr. Colton claims any special expertise in BC law regarding public utility regulation or privacy?

RESPONSE

No.

**2.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

As can be seen in the data presented in Schedule RDC-1, with the exception of low income customers living in single-family detached housing, low-income customers consistently have consumption between the third and fourth deciles of residential consumption. Low-income apartment dwellers have consumption between the 10th and 20th percentiles. This is significant given the large proportion of low-income customers who live in apartments. As the Company reports, while there are 78,442 low-income apartment dwellers (BCOAPO 1.69.4(a)), there are only 55,325 low-income households living in single-family detached housing units. (BCOAPO 1.69.4(b)). This low-income penetration of apartments differs sharply from the residential population as a whole. Within the residential population, there are 894,994 single-family detached home customers (BCOAPO 1.69.4(b)) compared to only 459,333

apartment customers. (BCOAPO 1.69.4(a)). (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 11/341, lines 16 to PDF page 12/341, line 4).

2.1 Please compare:

- the median consumption of all residential customers with all low income residential customers;
- the median consumption of all residential apartment dwellers with low income residential apartment dwellers; and
- the median consumption of all single-family dwelling customers with low-income single family dwelling customers.

RESPONSE

	Total Residential		Low Income	
	Median Usage	Source	Median Usage	Source
All	7,454	BCOAPO 1.58.2	5,298	BCOAPO 1.58.3
Apartments	3,699	BCOAPO 1.59.2	3,515	BCOAPO 1.60.2
Single-family	9,807	BCOAPO 1.59.2	8,797	BCOAPO 1.60.2

**3.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

“Other available information supports the conclusion that low-income customers would have a more difficult time responding to the proposed and future increases. The Company concedes, for example, that households with air conditioning tend to be more responsive to price than households without air conditioning. (BCOAPO 1.83). Low income, low-use customers tend to be customers that lack air conditioning.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 12/341, line 19 to PDF page 13/341, line 1).

3.1 Does Mr. Colton have any basis to believe that low-income low-use residential customers are necessarily less price responsive than all low use residential customers?

RESPONSE

Yes. The lack of ability of low income, low use customers to respond to price is explained in Mr. Colton’s Direct Testimony, page 46, line 27 through page 51, line 23

(Exhibit C2-12, PDF pages 51-56/341). This lack of ability is further explained in Attachment BCSEA 13.3A.

- 3.2 Does Mr. Colton accept that all else being equal a residential customer without air conditioning load is more likely to be a low use customer than a residential customer with air conditioning load?

RESPONSE

Mr. Colton accepts that, all else being equal, a residential customer without air conditioning load is more likely to be a lower use customer than a residential customer with air conditioning load. Accordingly, if all else is equal, and the only difference between two customers is whether Customer A has air conditioning and Customer B does not, it is more likely that Customer B will be low use.

- 3.3 What does Mr. Colton know about the penetration of residential air conditioning load in BC Hydro's service area?

RESPONSE

Mr. Colton's knowledge on this point is derived from BC Hydro's 2014 Residential End-Use Study (REUS).

Mr. Colton's Direct Testimony at page 8, lines 3-4 (Exhibit C2-12, PDF page 13/341) states in relevant part: "According to BC Hydro, there is no better data available on BC Hydro customer demographics and end uses than the REUS (BCOAPO 1.112.1)."

BC Hydro's 2014 REUS said the following about penetration of residential air conditioning load in BC Hydro's service area (Exhibit B-1, BC Hydro 2015 Rate Design Application, Appendix C-3F, page 81):

"Air Conditioners

- After stalling at 26 percent in 2012, home ownership of at least one of any central, portable or room air conditioner has moved up 1 point to 27 percent. While this increase over the past two years is not material, it does set a high water mark and a near tripling in ownership since 2001.
- The specific installation of central air conditioners has increased 1 point over the past two years to measure 12 percent while the installation of portable air conditioners has increased 2 points to 12 percent. Ownership of room air conditioners has remained unchanged at 6 percent.
- At 62 percent, the use of either central, portable or room air conditioners measures at least 37 points higher among customer homes in the Southern Interior than among customer homes elsewhere in the province.

- As expected, homes with these air conditioners tend to have an average of just 1 each.”

BC Hydro also sets out the penetration and average number of air conditioners by region at Exhibit B-1, page 81, Table 9-1a.

**4.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

“Since BC Hydro calculates annual load factor as total annual energy (numerator) divided by the product of annual peak demand (denominator) and annual hours (denominator) (BCOAPO 1.54.0), the lower load factor of higher usage residential customers (and, correspondingly, the higher load factor of low-use residential customers) is evident.” (see also, BCOAPO 1.49.1).” (Exhibit C2 12, Direct Testimony of Roger Colton, PDF page 14/341, lines 4 to 8).

- 4.1 Please confirm that BC Hydro’s response to BCOAPO IR 1.49.1 shows that residential load factor is positively correlated with consumption.

RESPONSE

BC Hydro’s response to BCOAPO 1.49.1 speaks for itself.

- 4.2 In Mr. Colton’s experience, does the manner in which BC Hydro calculates load factor differ materially from industry norms?

RESPONSE

No.

**5.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

“Despite these relatively lower costs that low-income customers impose on the system as low use customers, low use customers do not have the reduced costs reflected in their rates. Instead, quite to the contrary, low-income, low use rates are increased while denying those low-income, low use customers the ability to avoid the rate increase through mechanisms commonly available to residential customers as a whole.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 14/341, lines 13 to 19).

- 5.1 On what cost-of-service basis does Mr. Colton advocate for an Essential Services Usage Block (**ESUB**) rate for all qualifying low-income customers regardless of usage, and not for all low usage customers regardless of income?

RESPONSE

The basis, including the cost-of-service basis, for Mr. Colton's recommended Essential Services Usage Block rate is set forth in Mr. Colton's Direct Testimony, page 5, line 1 through page 13, line 8 (Exhibit C2-12, PDF pages 10 - 18/341). Please also see BCOAPO's response to BCUC IR 21.3.1.

- 5.2 What in Mr. Colton's opinion is the maximum monthly usage that is associated with a lower cost of service?

RESPONSE

Mr. Colton has not calculated the maximum monthly usage associated with a lower cost of service.

6.0 Reference: Essential Services Usage Block Rate Exhibit C2-12

"The Essential Services usage block should be available to customers confirmed as having income at or below 100% of the Pre-Tax Low-Income Cutoff (LICO-PT). I recommend that BC Hydro not engage in its own income qualification for the Essential Services usage block. Instead, BC Hydro should accept the income qualifications of designated federal and provincial social assistance programs. BC Hydro need not know the precise income of the customer; instead, income qualification is a yes/no toggle. The relevant third party need only confirm that a customer is (or is not) income qualified under the LICO-PT decision-rule." (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 18/341, lines 15 to 20).

In his direct testimony, Mr. Colton proposes a three-stage expansion of the number of third-parties designated to confirm income qualification for the ESUB rate (Exhibit C2-12, Direct Testimony of Roger Colton, PDF pages 28/341 to 31/341).

In his direct testimony, Mr. Seth Klein suggests a number of ways to measure poverty, in addition to the LICO-PT referred to by Mr. Colton. (Exhibit C2-12, Direct Testimony of Set Klein, PDF pages 262/341 to 266/341).

- 6.1 Please confirm that under the proposed third-party income qualification process for the proposed ESUB rate, the designated third parties would be responsible for initiating the request to BC Hydro for access to the ESUB rate on behalf of eligible individual low-income customers.

RESPONSE

Confirmed.

- 6.2 Please confirm that the proposed ESUB rate would be available only to those individuals who are BC Hydro account holders.

RESPONSE

Confirmed.

- 6.3 Please confirm that arrangements between BC Hydro and designated third parties would need to account for the specific institutional capabilities and/or limitations of the individual third parties.

RESPONSE

Confirmed.

- 6.4 Please confirm that third parties charged with the responsibility of initiating the request to BC Hydro for access to the ESUB rate on behalf of eligible individual low-income customers are in most if not all cases likely to expect to take part only if they can recoup at least their incremental costs?

RESPONSE

Not confirmed. Please see the Direct Testimony of Roger Colton, page 30, line 20 through page 31, line 3 (Exhibit C2-12, PDF page 35-36/341).

- 6.5 Please confirm that arrangements between BC Hydro and designated third parties would, regardless of the answer BC Hydro IR 6.3 to the BCOAPO, need to reflect the specific terms and conditions of any ESUB rate approved by the Commission.

RESPONSE

Confirmed.

- 6.6 Does the BCOAPO, or Mr. Colton, believe that once a customer is qualified for the proposed ESUB rate that he or she should remain qualified indefinitely?

RESPONSE

No. Please see BCOAPO's responses to MoveUp IRs 2.5 and 2.5.2 for further information regarding Mr. Colton's proposed eligibility requalification/reverification process for the Essential Services Usage Block.

**7.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

- Q HAS BC HYDRO EVER DETERMINED WHAT LEVEL OF USAGE IS NEEDED TO PROVIDE ESSENTIAL RESIDENTIAL SERVICE?

“A. No. BC Hydro states that it “is not aware of a commonly-accepted definition of what constitutes essential needs in a non-electric space heating household.” (BCOAPO 1.76.1, internal quotation marks omitted). The Company does not have an opinion about, or any information on, what usage amounts or end uses would exceed essential needs. (BCOAPO 1.77.1). Nor does the Company have an opinion about, or any information on, whether the level of essential needs varies by income. (BCOAPO 1.78.1).” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 19/341, lines 13 to 18).

- 7.1 Please confirm that BC Hydro is not, in the 2015 RDA or otherwise, proposing a low income rate generally or an Essential Services Usage Block rate as proposed by Mr. Colton specifically.

RESPONSE

Confirmed.

- 7.2 Please confirm that the BCOAPO will in this proceeding request the Commission to approve an Essential Services Usage Block rate as proposed by Mr. Colton.

RESPONSE

Confirmed.

- 7.3 Please confirm that Mr. Colton holds himself out as an expert in low income utility issues, including rate and customer service issues, low income usage issues, payment patterns and affordability programs.

RESPONSE

Mr. Colton’s statement of his credentials was set forth in his Direct Testimony, page 1, line 5 through page 3, line 18 (and referenced attachments) (Exhibit C2-12, PDF pages 6-8/341).

- 7.4 Please confirm that Mr. Klein holds himself out as an expert in fiscal policy, taxation, welfare policy, poverty, inequality and economic security.

RESPONSE

Confirmed. Please see Exhibit C2-12, Direct Testimony of Seth Klein, A4.

8.0 Reference: Essential Services Usage Block Rate Exhibit C2-12

“Instead, a decision rule set at the 80th percentile, according to BC Hydro, is a more appropriate decision rule. (BCOAPO 2.340.1).” (Exhibit C2-12, Direct

Testimony of Roger Colton, PDF page 20/341, line 22 to PDF page 21/341, line 1).

- 8.1 Please confirm that the BC Hydro response referenced in this question (BCOAPO IR 2.340.1) is in regard to a BC Hydro proposal to set a default duration that it would hold security deposits for residential customers who reside in apartments.

RESPONSE

Confirmed.

- 8.2 Please advise on any instance in which BC Hydro refers to an “80th percentile decision rule”.

RESPONSE

Please see Exhibit C2-12, Direct Testimony of Roger Colton, page 15, line 22 through page 16, line 1 (Exhibit C2-12, PDF pages 20-21/341).

- 8.3 Please explain the relationship, if any, between the default duration that BC Hydro would hold security deposits for residential customers who reside in apartments, and the kWh block size of the proposed Essential Services Usage Block rate.

RESPONSE

The duration (in days or months) and the kWh block size (measured in kWh) of the proposed Essential Services Usage Block rate are not related.

9.0 Reference: Essential Services Usage Block Rate Exhibit C2-12

“I proposed an Essential Services usage block discount of four cents per kilowatt-hour (\$0.04/kWh). A four cent discount provides meaningful assistance to low-income customers without imposing unreasonable burdens on residential customers not taking service under the Essential Services usage block. Depending on consumption, as disaggregated based on the housing type, heating fuel and location factors I have previously discussed, the proposed discount would provide a bill reduction of between \$9 and \$16 per month on low-use, low-income bills.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 24/341, lines 1 to 7).

“Someone in the community eventually paid his outstanding bill so he could get reconnected. His EPP is now \$200/month, which is deducted directly from his disability benefits – from a total monthly income of \$906, that is a lot.... Another recent case involved a woman who has been living in the same apartment building for more than 10 years – it is an older building, but not run down. She is

on disability assistance. She is on an EPP, and her monthly payment was almost \$120 (paid directly by the Ministry out of her disability benefits...)...” (Exhibit C2-12, Direct Testimony of Patty Edwards, PDF page 303/341)

“In my experience, clients have difficulties dealing with BC Hydro payment and billing issues on their own. Most of our clients are living far below Statistics Canada’s Low Income Cut Off. Most of our clients have long histories of dealing with systems and institutions, have lower education and literacy levels, including life skills literacy, which is why they are involved in our programs. Some of our clients do not open bills they receive, including bills from BC Hydro, or do not recognize the consequences of their bills. They often do not know how to read a BC Hydro bill, or understand how Equal Payment Plans work. Some of our clients feel that there’s nothing they can do about the bills they receive.” (Exhibit C2-12, Direct Testimony of Emma Gauvin, PDF page 309/341).

“This creates problems because low income people move in because the rent is cheaper, and they don’t realize until they move in that electricity costs can be \$300 per month. Often times, this ends up being low income single parent families – they cannot afford to pay this much for electricity.” (Exhibit C2-12, Direct Testimony of Audrey Schwartz, PDF page 325/341).

“We tend to hear from people when they have been disconnected or are facing disconnection. We also hear from people who have received large BC Hydro bills that they cannot pay—for example, people who are facing a large and unexpected bill following an Equal Payment Plan true-up.” (Exhibit C2-12, Direct Testimony of Keith Simmonds, PDF page 328/341).

“We tend to see people who have been disconnected, or are on the verge of disconnection. If someone is heating their house with electricity in the winter in a northern community, the bills can be enormous. It is much darker and colder here in the winter than in other parts of the province, and people use light and heat a lot more.” (Exhibit C2-12, Direct Testimony of Stacey Tyers, PDF page 333/341).

“We assist people with BC Hydro issues on an as-needed basis—by the time people come into our office, it is usually a crisis/urgent matter. We frequently see clients who have received a disconnection notice, or those who are falling behind on payments and do not have the means to pay outstanding amounts. People also come to us when they are at risk of being cut off and they have been unable to negotiate a workable repayment plan with BC Hydro.” (Exhibit C2-12, Direct Testimony of Stephen Portman, PDF page 338/341).

- 9.1 Please confirm that the proposed Essential Services Usage Block would yield a monthly discount of no more than \$16 per month regardless of monthly consumption, housing type, heating fuel or location (i.e., \$0.04/kWh x 400 kWh = \$16).

RESPONSE

Confirmed. In addition, qualified customers would experience each month a reduction in RS 1901 (the Deferral Account Rate Rider). The DARR is currently set by the Commission at 5% and would result in an additional 80 cents per month in savings, along with reduced GST, which is currently also 5% and would result in an additional 84 cents per month in savings.

- 9.2 Please confirm that the proposed Essential Services Usage Block would yield a monthly discount of no more than \$16 per month regardless of the number of occupants residing in the premise of the account holder (i.e., $\$0.04/\text{kWh} \times 400 \text{ kWh} = \16).

RESPONSE

Confirmed, subject to the impact of the DARR and GST as set out in response to BC Hydro IR 9.1.

- 9.3 Please confirm that the proposed Essential Services Usage Block would yield a monthly discount of up to \$16 per month regardless of whether the residential rate structure was the current Residential Inclining Block rate or some alternate rate structure (i.e., $\$0.04/\text{kWh} \times 400 \text{ kWh} = \16).

RESPONSE

Confirmed, subject to the impact of the DARR and GST as set out in response to BC Hydro IR 9.1.

- 9.4 Please confirm that under the proposed Essential Services Usage Block a participating low income customer would need to be qualified as meeting the proposed Pre-Tax Low-Income Cut off as determined by some entity, whether it is BC Hydro or a third party as proposed by Mr. Colton.

RESPONSE

Confirmed.

- 9.5 Please confirm that under the Residential Inclining Block rate low use customers pay a lower average energy rate than higher use customers with no qualification process.

RESPONSE

Not confirmed. Please see BCOAPO's response to BCUC 21.1.

**10.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

“According to the Company, a typical low-income townhouse resident (electric heating) would experience a bill increase of \$247 over a three-year period with a “fictional” rate increase of 10% a year. A typical low-income resident in a single-family detached home (electric heating) would experience a bill increase of nearly \$500. (BCOAPO IR 1.208.1, Attachment 1, at page 34 of 46). The Essential Services usage block, in other words, will mitigate, but not completely protect, low-income customers against rate increases for the next three years.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 24/341, lines 14 to 20).

10.1 Please confirm that the proposed ESUB rate would yield cumulative bill savings of as much as \$576 over three years (\$0.04/kWh x 400 kWh/month x 12 months/year x 3 years).

RESPONSE

Confirmed, subject to the impact of the DARR and GST as set out in response to BC Hydro IR 9.1.

10.2 Please confirm that BC Hydro’s rate increases in the three-year period F2017 to and including F2019 are limited in law to 4.0 per cent, 3.5 per cent and 3.0 per cent.

RESPONSE

Confirmed, subject to the impact of the DARR and GST.

**11.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

In his direct testimony Mr. Colton discusses how the foregone revenue arising from the proposed Essential Services Usage Block rate could be recovered from residential customers (Exhibit C2-12, PDF page 29/341, line 15 to PDF page 31/341, line 8). It is unclear whether Mr. Colton proposes recovering the foregone revenue from all residential customers, or from RIB Step 2 consumption.

11.1 Please confirm which recovery mechanism Mr. Colton is proposing and how it would be implemented.

RESPONSE

Mr. Colton’s Direct Testimony, page 26, lines 1-3 (Exhibit C2-12, PDF page 31/341), states in relevant part: “I have calculated an annual bill impact of my recommended Essential Services usage block discount (400 kWh/month with discount of \$0.04) to

residential ratepayers for the mechanism which spreads the revenue reduction over all residential consumption.”

**12.0 Reference: Essential Services Usage Block Rate
Exhibit C2-12**

“My experience is that administration becomes routine. Further, my experience is that administrative problems often expected simply do not occur. For example, I was involved with the creation of the Ontario Electricity Support Program (OESP). Particularly given the large number of distribution utilities, some stakeholders had expressed concerns about the program’s administration. At a March 2016 Low-Income Energy Network conference in Toronto, however, the Staff of the Ontario Energy Board (OEB) reported that, while not without some minor hitches, the roll-out of the OESP occurred largely without problems. I have attached the OEB presentation to my testimony as Appendix C.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF pages 39/341, lines 14 to 22).

12.1 Please confirm that the Ontario Electricity Support Program results in monthly bill credits that range from \$30 to \$75 per month, depending on household size, medical qualifications, primary heat source and First Nation status (Exhibit C2-12, Direct Testimony of Roger Colton, Appendix C, PDF pages 217/341 to 218/341).

RESPONSE

Confirmed.

12.2 Please confirm that the Ontario Electricity Support Program began January 2016.

RESPONSE

Confirmed.

12.3 When did efforts to develop the Ontario Electricity Support Program begin?

RESPONSE

On April 23, 2014, the Minister of Energy asked the Ontario Energy Board (OEB) to recommend an option for delivering an ongoing ratepayer-funded bill assistance program. The Minister asked the Board to provide advice on the development of an Ontario Electricity Support Program (OESP), which would assist low income customers who are spending a disproportionate amount of their income paying for electricity. The OEB conducted a stakeholder consultation process, and on December 22, 2014 released its *Report of the Board: Developing an Ontario Electricity Support Program*, online: Ontario Energy Board http://www.ontarioenergyboard.ca/oeb/ Documents/EB-2014-0227/Report_of_the_Board_Developing_an_OESP_20141222.pdf.

The OEB held the first stakeholder forum to develop the OESP on November 5, 2014. Please see *Program Stakeholder Forum*, online: Ontario Energy Board <http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/455219/view>.

- 12.4 What were the total non-recurring set-up costs of the Ontario Electricity Support Program since efforts began to develop the program?

RESPONSE

The total non-recurring set-up costs of the Ontario Electricity Support Program are not available to Mr. Colton.

The provinces of Ontario and British Columbia differ in many respects, with the relevant one in this instance being the number of local distribution companies (LDCs) in each province. In Ontario, there are currently over 80 LDCs, comprising Hydro One Inc. and approximately 80 LDCs, most of which are descendants of the 310 Municipal Electric Utilities that existed in Ontario at the end of the last century. However, British Columbia has a much smaller list of electric utilities—primarily BC Hydro and FortisBC, and several municipal utilities.

As a result, the implementation of various forms of assistance to low income customers has been much more complex in Ontario than it can be expected to be in BC.

- 12.5 What are the total recurring annual costs of the Ontario Electricity Support Program (please show the components of total annual recurring costs, including program administration costs and sum of the monthly bill credits).

RESPONSE

The total recurring annual costs of the Ontario Electricity Support Program are not available to Mr. Colton.

The OEB's December 22, 2014 *Report of the Board: Developing an Ontario Electricity Support Program*, online: Ontario Energy Board http://www.ontarioenergyboard.ca/oeb/ Documents/EB-2014-0227/Report_of_the_Board_Developing_an_OESP_20141222.pdf states the following about program costs of the OESP (at page 3):

“Our recommended approach would provide meaningful assistance to an eligible population of over 500,000 Ontario low-income households. We estimate the total program cost would be between \$175 and \$225 million. All program costs and participation rate projections are best estimates based on available data.”

- 12.6 Will the Ontario Electricity Support Program expand the income qualification process in a manner similar to or analogous to what Mr. Colton proposes for BC Hydro at Exhibit C2 12, Direct Testimony of Roger

Colton, PDF pages 28/341 to 31/341? If “yes”, please include the incremental costs of the expansion in the response to BC Hydro IRs 12.4 and 12.5 to the BCOAPO.

RESPONSE

As far as Mr. Colton is aware, there are no plans at this time to expand the income qualification process for the OESP. The OESP income threshold is set at Statistics Canada’s after tax Low Income Measure - see slides 10 and 17 of the OEB’s March, 2016 presentation at the Ontario Low Income Energy Network conference (Donna Kinapen and Rachel Anderson, *New Ontario Electricity Support Program: Low-Income Energy Assistance Program*, online: Low-Income Energy Network http://www.lowincomeenergy.ca/assets/sitedocs/2016/OEB_OESP%20LIEN%20Presentation%202016-03-23%20-%20Final.pdf). As noted at slide 25 of the presentation, however, modifications are being made to the OESP application process.

The income qualification process is discussed in more detail at slides 22-39 of the OEB’s March 2016 presentation. In particular, see slide 24 which states that applicants can be eligible for Automatic Income Verification if they present their SIN numbers or other temporary tax numbers for all tax filers in the household. Alternatively, applicants can present proof of income from all household members, which may include one or more of the following:

- Recent pay cheque stub
- Recent letter from employer
- Recent income tax return
- Recent Ontario Works statement
- Employment Insurance
- Ontario Disability Support Program
- Canada Pension Plan
- Workplace Safety and Insurance Board
- Old Age Security Pension
- Rental Income
- RRSPs
- Recent bank statement

**13.0 Reference: Crisis Intervention Fund
Exhibit C2-12**

“A crisis intervention program would involve providing funds when a low-income customer faces a situation that threatens the continuing ability of that customer to take electric service.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 41/341, lines 17 to 19).

13.1 Is the BCOAPO seeking an order from the Commission in this proceeding requiring BC Hydro to establish the proposed “crisis intervention fund”?

RESPONSE

Yes.

13.2 If yes, please comment on the Commission’s jurisdiction to order BC Hydro to establish such a fund.

RESPONSE

Please see BCOAPO’s response to BCUC IRs 1.3, 18.2, and 28.2.

**14.0 Reference: Crisis Intervention Fund
Exhibit C2-12**

“A crisis intervention program would involve providing funds when a low-income customer faces a situation that threatens the continuing ability of that customer to take electric service.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 41/341, lines 17 to 19).

14.1 How many agencies and organizations in British Columbia, including MSDSI, currently provide funds for low income customers in situations that threaten the ability of such customers to take electric service?

RESPONSE

Mr. Colton has not undertaken an inventory of the agencies and/or organizations in British Columbia that currently provide funds for low income customers in situations that threaten the ability of such customers to take electric service.

BCOAPO cannot provide a definitive answer on the number of agencies and organizations in BC that currently provide funds for low income customers in situations that threaten the ability of such customers to take electric service. Below we provide information on the programs of which we are aware that provide such assistance.

1. Assistance available through Ministry of Social Development and Social Innovation (MSDSI)

Section 59 of the Employment and Assistance Regulation (the “EA Regulation”) and Ministry of Social Development and Social Innovation (MSDSI) policy allow MSDSI to provide a “crisis supplement” to a person in receipt of income assistance where the person’s expense was unexpected, where the person has no other available resources to meet the need, and where failure to meet the expense would result in “the imminent danger to the physical health of any person in the family unit.” Section 57 of the Employment and Assistance for Persons with Disabilities Regulation sets out the comparable provision for a person in receipt of disability assistance. There are a number of rules around amounts of crisis supplements that can be provided if they relate to a food, shelter, or clothing expense.

MSDSI has also developed policies on the requirements for crisis supplements. There is a specific policy, the “Essential Utilities Supplement,” for where a person requires a supplement to pay for essential utilities for their home. The policy states that where a person has reached the maximum limit for crisis supplements, MSDSI can provide a further supplement where a person has been served with a disconnection notice or is faced with the inability to re-establish their essential utilities. The Essential Utilities Supplement policy is set out below:

Essential Utilities Supplement: January 8, 2007

January 8, 2007

A crisis supplement for essential utilities may be provided if recipients have reached their monthly or annual limit for crisis supplements, exhausted all resources, and do not have the ability to maintain essential utilities for their home when served with a disconnection notice or faced with the inability to re-establish essential utilities.

Essential utilities include:

- fuel for heating
- fuel for cooking meals
- water
- hydro

The essential utilities supplement counts towards a recipient's cumulative annual limit for crisis supplements.

[This policy can be found in MSDSI’s “BC Employment and Assistance Policy and Procedure Manual”, online: Government of BC
<http://www2.gov.bc.ca/gov/content/governments/policies-for-government/bcea-policy-and-procedure-manual/general-supplements-and-programs/crisis-supplement>]

BCOAPO understands that MSDSI frequently denies requests for crisis supplements for utility arrears on the basis that the applicant's need does not meet the eligibility requirements set out in section 59 of the EA Regulation and section 57 of the EAPWD Regulation—specifically, that disconnection due to non-payment cannot be said to be “unexpected” as is required by the Regulations for the issuance of a crisis supplement. Specifically, the Ministry finds that it is not “unexpected” that one's power would be disconnected if they do not pay their utility bills, and that it is a predictable and foreseeable expense. This is corroborated by the Direct Testimonies of Patty Edwards (Exhibit C2-12, PDF page 305/341), Stephen Portman (Exhibit C2-12, PDF page 340/341), Audrey Schwartz (Exhibit C2-12, PDF page 326/341), Keith Simmonds (Exhibit C2-12, PDF page 330/341), and Stacey Tyers (Exhibit C2-12, PDF pages 335-336/341).

Where crisis supplement requests are denied based on the “unexpected need” criterion, and an applicant must then go through MSDSI's reconsideration and appeal process, it can take months for a supplement to be granted (if at all). By that point, the person may have been disconnected (if they were not already disconnected), and will also face a reconnection charge in addition to the arrears.

2. Assistance available through other programs

Aside from the assistance that may be available through MSDSI, there is a BC Housing initiative called the Homelessness Prevention Program (HPP), which is available in many communities across the province. See *Homeless Prevention Program*, online: BC Housing http://www.bchousing.org/Options/Emergency_Housing/HPP.

If someone is ineligible for help with their BC Hydro bill from MSDSI, they may be able to apply for assistance through local agencies that administer the HPP funds. The amount in these funds is limited to a total amount each month in each community to assist people in the area with both rent and utilities; for example, in Terrace, BC, the total amount of the fund to provide emergency assistance for applicants with their rent or utility bill (if they are facing disconnection) is \$1200 (Exhibit C2-12, Direct Testimony of Stacey Tyers, PDF page 336/341). We understand that the HPP funds generally run out in the first few days of each month. While it is not a guaranteed source of financial assistance even at the beginning of the month, it certainly does not provide a solution for people that are facing disconnection later in the month.

BCOAPO has heard of some more informal sources of assistance through community agencies, but these are limited and inconsistent sources of funding, and are highly discretionary.

People who live in Vancouver, Surrey or Kamloops and are not receiving provincial income assistance may be able to access “Rent Banks” which make small loans to low

income working people to pay rent and/or utilities.¹ For more information about these Rent Banks, see:

**15.0 Reference: Crisis Intervention Fund
Exhibit C2-12**

“The crisis intervention fund should be administered through an independent third-party.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 42/341, line 9).

15.1 In Mr. Colton’s experience, how much can independent third parties can be expected to charge for the administration of a crisis intervention fund of the magnitude proposed (\$5.4 million per year)?

RESPONSE

Mr. Colton considers that the imposition of an administrative cap not exceeding 10% would be reasonable.

15.2 In Mr. Colton’s experience, what per cent of low income customers can be expected to access the crisis intervention fund in a year?

RESPONSE

The number of customers that can be expected to access the crisis intervention fund will depend on the “design guidelines” developed for fund distribution. As Mr. Colton’s Direct Testimony states: “I recommend that the third party administrator, through a collaborative process involving the Company and other stakeholders, establish a set of program design guidelines. Developing such design guidelines, however, is not a necessary process to be pursued prior to approval of the funding mechanism. Instead, establishing the funding mechanism is the first necessary step.” Exhibit C2-12, Direct Testimony of Roger Colton, at page 44, lines 9-14 (PDF page 49/341)).

15.3 Is there any empirical evidence that Mr. Colton is aware of that shows that crisis intervention funds as proposed serve to reduce bad debt?

RESPONSE

Yes. As noted in Mr. Colton’s Direct Testimony, the proposed crisis intervention fund would be available “to prevent the disconnection of service for nonpayment. In the alternative, a crisis intervention grant might respond to a level of arrears that the program administrator deems is of sufficient size that the customer will never be

¹ Vancouver Rent Bank, online: Network of Inner City Community Services Society
<http://www.niccsc.ca/VRB>

Sources Rent Bank, online: SOURCES Community Resource Centres
http://www.sourcesbc.ca/index.php?option=com_content&view=article&id=205&Itemid=163;

Kamloops Rent Bank, online: Kamloops and District Elizabeth Fry Society
<http://www.kamloopsefry.com/programs-services/housing/kamloops-rent-bank/>

capable of retiring them in full.” (Exhibit C2-12, Direct Testimony of Roger Colton, page 36, line 20 through page 37, line 2 (PDF page 41-42/341)).

There is substantial information documenting that there is a risk of bad debt when customers have arrears of a sufficient size that the customer will never be able to fully retire them. The reduction of working capital resulting from crisis intervention funds is a far larger expense reduction than the reduction of bad debt. A reduction in working capital results from the retirement or reduction of arrears.

**16.0 Reference: Crisis Intervention Fund
Exhibit C2-12**

“I recommend that the third party administrator, through a collaborative process involving the Company and other stakeholders, establish a set of program design guidelines.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 49/341, lines 9 to 11).

BC Hydro is interested in the roles of the Commission in establishing and maintaining the guidelines referred to.

16.1 Would the guidelines be subject to Commission orders initially approving them, and amending them from time to time?

RESPONSE

It would be within the Commission’s prerogative to determine whether it wishes to subject the program design guidelines to Commission approval and to reserve the right to amend them from time to time. Such approval and amendment authority was not contemplated by Mr. Colton’s testimony. Instead, Mr. Colton’s testimony contemplated distribution of funding, subject to broad guidelines, and subject to contractual obligations. Mr. Colton’s Direct Testimony states in relevant part at page 37, lines 10-16 (Exhibit C2-12, PDF page 42/341):

“That third party can, at its discretion, take responsibility for performing intake and grant disbursement or, in the alternative, can oversee a network of community-based organizations (CBOs) and local/provincial government agencies who would do outreach, intake and grant-making within program-prescribed guidelines. In my experience, the network approach is the more effective and efficient mode of operation. Participating CBOs are allocated a not-to-exceed sum of funds that would be available for distribution as crisis intervention grants consistent with contract obligations.”

16.1.1 If yes, please comment on the Commission’s jurisdiction to approve and amend such guidelines.

RESPONSE

While the Crisis Intervention Fund program would be administered by a third party (or third parties) it would ultimately be a BC Hydro program. Approval of rules or guidelines related to its administration are within the Commission's jurisdiction pursuant to sections 23 and 26 of the UCA ("General supervision of public utilities" and "Commission may set standards", respectively).

It is not unprecedented for the Commission to approve rules and guidelines to ensure fair administration of programs related to regulated utilities. See, for example, the Rules for Gas Marketers and Revised Licence Requirements and Application Instructions attached as Appendix A to Commission Order A-12-13 (online: http://www.bcuc.com/Documents/Orders/2013/DOC_36978_A-12-13_CustChoice2012AGM.pdf). (BCOAPO acknowledges that the Commission's jurisdiction over these rules is explicitly set out in s. 71.1 of the UCA).

Another example is the present proceeding concerning Commission review of BC Hydro's Application for Approval of Section 2.5 Guidelines for Tariff Supplement No. 3 to Rate Schedule 3808. This proceeding flows from Commission Order No. G-60-14, Directive 2, in which the Commission directed BC Hydro to initiate a consultation process that would result in an application for New Power Purchase Agreement (PPA) Section 2.5 Guidelines—guidelines that could be used to determine a customer-specific baseline for the purpose of applying Section 2.5 of the new PPA. Section 2.5 of the PPA limits FortisBC from using PPA energy to serve the load of any customer with self-generation facilities when that customer is selling self-generated electricity, unless the portion of the customer's load being served by self-generated electricity is equal to or greater than that customer's customer-specific baseline.

- 16.2 Would complaints regarding the application of the guidelines by the third party administrator be resolved by the Commission?

RESPONSE

No. BCOAPO would advocate for a similar model as has been adopted in Ontario for its Low-income Energy Assistance Program Emergency Financial Assistance (LEAP EFA), which requires third party administrators to have an internal review process regarding denials of applications for assistance. The LEAP program manual for third party agencies sets out the following at page 49-50:

"[L]ead agencies are required to have a review process for those applicants who disagree with the decision regarding their application for LEAP EFA funds. It is suggested that this process is clearly explained to all applicants when they are denied assistance, through phone or letter.

Agencies can use the attached template to provide information on the appeals process to applicants whose application has been denied. It is recommended that the review process for each agency include:

- The process for which applicants can register their request for review. For example, by letter, phone call or application;
- The time frame in which their request for review may be considered. Ten days is a suggested time frame;
- The review of the applicant's denial of assistance must be completed by agency staff who were not involved in the application process or the decision. If agencies do not have an appropriate internal staff for this, you may consider another partnering agency staff person. A panel may also be considered, comprising internal staff/a partnering agency/board member;
- Reviewers should be provided with the client's application, supporting documents and a description of the client's situation. If this information is provided to an outside agency, it will be important that consent to release information has been signed by the applicant before the information is signed; and
- There must be an appropriate time frame for the applicant to be informed of the decision resulting from the review. It is recommended that this is no longer than five days due to the urgency of the situation. Applicants should be informed in writing or by phone call."

For more information on LEAP-EFA administration, see the OEB's *OESP & LEAP Program Manual* effective October 2015 (online: Ontario Energy Board http://www.ontarioenergyboard.ca/oeb/Documents/Documents/OESP_LEAP_Program_Manual.pdf). (Also cited in BCOAPO's response to BCUC IR 11.2).

16.2.1 If yes, please comment on the Commission's jurisdiction to adjudicate such complaints.

RESPONSE

Please see BCOAPO's response to BC Hydro IR 16.2.

17.0 Reference: **DSM** **Exhibit C2-12**

"I recommend that in this proceeding, the Commission direct BC Hydro to make certain minimum DSM service level guarantees for low-income customers. The level of DSM funding to be devoted to low-income should be sufficient to reach 50% of the below 130% of LICO-PT low-income population through ECAP, both heating and non-heating, within 15 years." (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 66/341, lines 7 to 11)

"BC Hydro does not have similar housing data for the population with income below-LICO +30% to allow me to make similar estimates for LICO-130 customers

by housing type and heating fuel. (BCOAPO 2.261.1).” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 66/341, lines 17 to 20)

“Based on the Company’s representations that it believes it more appropriate to leave the actual design of low-income DSM programs to its forthcoming DSM proceeding, and given the inextricable link between program design and program budget, I propose to defer actual program design and budgeting to that proceeding.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 67/341, lines 3 to 6).

17.1 Please confirm that the BCOAPO is seeking an order from the Commission in this proceeding requiring BC Hydro to incur sufficient annual expenditures on its Energy Conservation Assistance Program (ECAP) to ensure that 50 per cent of its residential customers with household income less than 130 per cent of the Low-Income Cutoff have received ECAP benefits from BC Hydro within 15 years of the requested Commission order (the Requested DSM Order).

RESPONSE

Confirmed.

17.2 Please confirm that the BCOAPO seeks the Requested DSM Order despite not knowing or offering any evidence regarding:

- the target number of low income residential customers (whether measured at inception or after the 15 years);
- how much it would cost to comply with the requested order;
- what specific demand side management measures would be included in the ECAP from time to time over the 15 years;
- BC Hydro’s energy (conservation) needs over the proposed 15 year timeframe;
- BC Hydro’s revenue requirements over the proposed 15 year timeframe;
- Whether it would be cost-effective; and
- Whether there would be sufficient participation levels to sustain the Requested DSM Order.

RESPONSE

Mr. Colton’s Direct Testimony states in relevant part at page 62, lines 3-9 (Exhibit C2-12, PDF page 67/341):

“Based on the Company’s representations that it believes it more appropriate to leave the actual design of low-income DSM programs to its forthcoming DSM proceeding, and given the inextricable link between program design and program budget, I propose to defer actual program design and budgeting to that proceeding. Nonetheless, consistent with the Minister’s letter, I find that it is feasible and appropriate to articulate and require compliance with the principle of serving 50% of the low-income households within a 15 year time frame. That principle should be established in this proceeding.”

Mr. Colton is making this suggestion in direct response to the Honourable Minister of Energy and Mines’ July 6, 2016 questions relating to low income DSM that are now being considered in the Commission’s RIB Rate Report proceeding. The questions can be found at Exhibit A-1 of the Commission’s RIB Rate Report proceeding.

17.3 Please comment on the Commission’s jurisdiction to issue the Requested DSM Order.

RESPONSE

The Commission instituted the RIB Rate Report proceeding in response to the Honourable Minister of Energy and Mines’ letter which can be found at Exhibit A-1 of that proceeding. The letter requires the Commission to provide information on low income DSM, including “Within the current regulatory environment, what options are there for additional Demand Side Management programs, including low income programs?”

18.0 Reference: DSM Exhibit C2-12

“I recommend that in this proceeding, the Commission direct BC Hydro to make certain minimum DSM service level guarantees for low-income customers. The level of DSM funding to be devoted to low-income should be sufficient to reach 50% of the below 130% of LICO-PT low-income population through ECAP, both heating and non-heating, within 15 years.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 66/341, lines 7-11).

“A decision on what low-income measures would appropriately be offered through the ECAP is most appropriately decided in the upcoming BC Hydro DSM proceeding.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 66/341, footnote 36).

“Based on the Company’s representations that it believes it more appropriate to leave the actual design of low-income DSM programs to its forthcoming DSM proceeding, and given the inextricable link between program design and program budget, I propose to defer actual program design and budgeting to that proceeding.” (Exhibit C2-12, Direct Testimony of Roger Colton, pdf page 67/341, lines 3 to 6).

- 18.1 Please explain why it is appropriate for the Commission to issue the Requested DSM Order (as defined in BC Hydro IR 17.1 to the BCOAPO) in this proceeding and not "the upcoming BC Hydro DSM proceeding"?

RESPONSE

Please see Direct Testimony of Roger Colton at page 45, lines 10-19 (Exhibit C2-12, PDF page 50/341).

Q. PLEASE EXPLAIN THE CONTEXT OF YOUR DISCUSSION OF LOW INCOME DSM PROGRAMS.

A. In the Honorable Minister of Energy and Mines Bill Bennett's July 6, 2015 letter to the BC Utilities Commission, the Minister specifically requested that the Commission provide information on several issues, including "within the current regulatory environment, what options are there for additional Demand Side Management programs, including low income programs?" While BC Hydro has asserted that such information needs to be provided only if and to the extent that low-income customers had significant (over 10 percent) bill impacts as a result of this proceeding (BCOAPO 1.102.1), there is no language in the Minister's letter that imposes such a limitation.

- 18.2 Please explain why it is appropriate for the Commission to issue orders regarding program design and budgets, in the "upcoming BC Hydro DSM proceeding" but not the Requested DSM Order (as defined in BC Hydro IR 17.1 to the BCOAPO).

RESPONSE

Please see BCOAPO's response to BC Hydro IR 18.1.

**19.0 Reference: BCOAPO's Proposed T&Cs
Exhibit C2-12**

"Overall, a utility such as BC Hydro can be expected not only to collect more money through the Terms and Conditions discussed below, but to spend less money in the process of collection in so doing." (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 73/341, lines 12 to 14, emphasis added).

- 19.1 Please confirm that "Terms and Conditions discussed below" refer to:

- proposed cold weather shutoff protections;
- proposed shutoff protections for the very young, seniors and people with medical disabilities;
- proposed modifications to BC Hydro's offers of deferred payment plans;

- proposed modifications to BC Hydro’s late payment charge provisions;
- proposed exemptions for low income customers from “minimum reconnection charges” and “account charges”; and
- proposed modifications to BC Hydro’s securement of security deposits (collectively referred to by BC Hydro as “BCOAPO’s Proposed T&Cs”).

RESPONSE

BCOAPO’s proposed Terms and Conditions include those set forth in the Direct Testimony of Roger Colton (Exhibit C2-12), at:

- Part 4.B: Cold weather shutoff protections
- Part 4.C: Shutoff protections for the very young, seniors and people with medical emergencies.
- Part 4.D: Deferred payment arrangements
- Part 4.E: Late payment charges
- Part 4.F: Exempting low-income customers from specified charges
- Part 4.G: Cash security deposits

19.2 Please provide the quantitative evidence for each of BCOAPO’s Proposed T&Cs that supports the assertion that the BCOAPO’s Proposed T&Cs, if adopted, will result in BC Hydro earning more revenue and incurring less expense.

RESPONSE

BCOAPO does not assert that BC Hydro will necessarily earn more revenue *and* incur fewer expenses. BCOAPO asserts that its proposed low income Terms and Conditions will more cost-effectively serve to accomplish the objectives identified in BCOAPO’s response to BC Hydro IR 20.1.1. See BCOAPO’s response to BC Hydro IR 19.2 – Attachment 1 for the quantitative data requested in this question.

20.0 Reference: BCOAPO’s Proposed T&Cs (Cost Effectiveness) Exhibit C2-12

“Cost-effectiveness analysis is used to evaluate options for achieving a set of defined objectives.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 69/341, lines 6 to 7).

“First, a cost-benefit analysis does not specify the public policy decision that has been made that utility service should be preserved where feasible.”

(Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 70/341, lines 12 to 13).

20.1 Is the “defined set of objectives” that Mr. Colton refers to the preservation of “utility service where feasible”?

RESPONSE

No.

20.1.1 If not, please state the defined set of objectives that Mr. Colton would have the Commission consider using a cost-effectiveness analysis.

RESPONSE

The defined set of objectives for Mr. Colton’s low income terms and conditions include that payments be: (1) timely; (2) regular; (3) complete; and (4) unsolicited. Please see Roger Colton, *How to Successfully Implement a Low-Income Rate and Why*, online: Fisher, Sheehan & Colton Public Finance & General Economics <http://neuac.org/wp-content/uploads/2016/06/2F-Roger-Colton.pdf>.

An additional objective would be to provide low income customers with the ability to sustain complete bill payment. The preservation of utility service where feasible is an outcome, not an objective, of the Terms and Conditions.

20.2 Regardless of the answer to BC Hydro IRs 20.1 and 20.1.1 to the BCOAPO, what if any is the statutory basis for that defined set of objectives?

RESPONSE

The statutory basis for the objectives can be found in BC Hydro’s obligation to provide adequate, safe, efficient, just and reasonable, in accordance with section 38 of the *Utilities Commission Act*.

Public utility must provide service

38 A public utility must

(a) provide, and

(b) maintain its property and equipment in a condition to enable it to provide,

a service to the public that the commission considers is in all respects adequate, safe, efficient, just and reasonable.

**21.0 Reference: BCOAPO's Proposed T&Cs (Shutoff Protections for Young, Seniors, Disabled)
Exhibit C2-12**

“Compared to the total population, more than twice as many households experiencing a home energy emergency reported at least one of these self-efficacy conditions that impede the ability of the household to advocate on one’s own behalf. More than half of households experiencing an energy emergency reported such conditions. Of particular importance was the prevalence of feeling “worthless” or “hopeless...From the perspective of someone who has designed, implemented and evaluated both utility collection techniques and home energy assistance programs, I found that a household feeling “worthless” or “hopeless” cannot reasonably be expected to negotiate on their own behalf, particularly when faced with an energy emergency situation.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 85/341, lines 13 to 23).

“I recommend that BC Hydro adopt shutoff protections for the very young, for seniors and for households facing medical emergencies that mirror the model medical emergency regulation I authored for state utility regulators in the United States. 43 Pursuant to the processes set forth in that model regulation, BC Hydro would not disconnect service, or refuse to restore service, to premises when a qualified medical professional has certified that the customer or an applicant seeking restoration of service (or a member permanently residing in the customer’s or applicant’s household) is seriously ill or facing a medical emergency or disability that will be aggravated by cessation or denial of service, or will become seriously ill or have a medical emergency because of the cessation or denial of service, and that the denial of utility service would adversely affect the health of that customer or resident of the household. Nor would such disconnections occur for seniors or for households with young children.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 86/341, lines 11 to 22).

21.1 Please explain how BC Hydro would identify residential customers who lack self-efficacy (regardless of whether they are young, seniors or have medical disabilities).

RESPONSE

Mr. Colton’s Direct Testimony at page 63, lines 1-15 (Exhibit C2-12, PDF page 68/341) states the following:

Q. BEFORE CONSIDERING THE SPECIFIC TERMS AND CONDITIONS, PLEASE EXPLAIN HOW YOU WOULD IDENTIFY “LOW-INCOME” CUSTOMERS IN THOSE INSTANCES WHERE YOU RECOMMEND SPECIFIC LOW-INCOME TERMS AND CONDITIONS.

- A. In my testimony above, I explain in detail how I recommend that “low-income” customers be identified for purposes of the proposed Essential Services usage block. For purposes of the low-income Terms and Conditions I discuss below, I recommend that “low-income customers” be defined as those who are taking service under the Essential Services usage block. In other words, there is no reason for BC Hydro to keep two separate and distinct records of low-income status. The confirmation of income that is adequate for the Essential Services usage block should be deemed adequate for low-income Terms and Conditions as well. Even should the BCUC find it not appropriate to adopt the Essential Services usage block, however, the same process I discuss to identify low-income customers should be used for low-income terms and conditions, including the phase-in of the identification.
- 21.2 Please explain how likely it is that residential customers who lack self-efficacy will contact BC Hydro in the event of a medical emergency, or otherwise in regard to their service.

RESPONSE

Please see BCOAPO’s response to BC Hydro IR 21.1. BCOAPO anticipates that the “likelihood” of customers contacting BC Hydro, or an entity that would allow BC Hydro to identify the customer as a protected customer, is higher given the set of Terms and Conditions (and the corresponding administrative structure for those Terms and Conditions) that BCOAPO proposes. The administrative structure increases the involvement of third party community organizations, MSDSI, and other non-Company persons.

22.0 Reference: BCOAPO’s Proposed T&Cs (Late Payment Charge) Exhibit C2-12

“Any effort by BC Hydro to justify its proposed late payment charge as a mechanism through which to be compensated for the carrying costs of money faces an immediate fundamental flaw. To set an arbitrary date on which the Company will begin to impose a monthly Late Payment Charge has no rational basis. The carrying costs of money do not begin on the day after a residential bill is due. A customer that pays one day “late” does not impose significantly higher carrying costs on BC Hydro than a customer that pays one day “early.”
(Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 95/341, lines 14 to 20).

- 22.1 Please confirm that BC Hydro issues bills to residential customers in regard to electricity services provided in periods of time prior to the date the bills are issued. Alternatively, please confirm that BC Hydro does not bill for residential electricity services in advance of the provision of service.

RESPONSE

Confirmed

**23.0 Reference: BCOAPO's Proposed T&Cs (Minimum Reconnection and Account Charges)
Exhibit C2-12**

“When BC Hydro imposes a miscellaneous service charge such as the account charge or reconnection charge, rather than collecting funds from a cost-causer, as is the justification for most charges, the utility simply makes it less likely that it will receive payment of either the extra charge or the bill for current service associated with that charge. The low-income household ends up without service while the utility ends up without revenue.” (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 106/341, lines 18 to 23).

23.1 Please confirm the BCOAPO's understanding that BC Hydro imposes account charges and minimum reconnection charges only after the service in respect of which the charge is imposed has been provided, and the cost to be recovered by the charge has been incurred.

RESPONSE

BCOAPO does not confirm that the costs collected through either the account charge or through the minimum reconnection charge are causally related to the activity for which each is charged. BC Hydro has not documented that the costs associated with reconnecting service (or establishing service) would be avoided in the absence of the tasks of reconnecting (or establishing) service. In the absence of such documentation, the costs would be incurred irrespective of whether a certain number of service reconnections (or establishments) arise. Accordingly, BCOAPO is unable to confirm the assertion that account charges and minimum reconnection charges are imposed only after the service in respect of which the charge is imposed has been provided, and the cost to be recovered by the charge has been incurred.

23.2 Please confirm that the imposition of account charges and minimum reconnection charges will result in positive cost-benefit ratio provided the incremental revenues arising from the imposition of the charges exceeds the incremental cost of issuing the charges.

RESPONSE

Not necessarily. As discussed immediately above, BCOAPO denies the assertion that the account charge and/or minimum reconnection charge are causally related to costs that would have been avoided in the absence of the establishment or reconnection of service. BC Hydro costs do not vary based on the number of service reconnections or account changes. Total costs do not increase, for example, as the number of reconnections increase and total costs do not decrease as the number of reconnections decrease. Moreover, with respect to determination of an appropriate “cost-benefit ratio”, Mr. Colton's Direct Testimony at page 66, line 14 through page 67, line 7 (Exhibit C2-12, PDF pages 71-72/341) explains what is needed for a complete benefit-cost analysis. In this instance, BC Hydro would need to:

- identify the entire range of costs and benefits over time. The premise of the question that the entire range of costs and benefits are incorporated by the incremental revenue and the incremental costs of generating that revenue is incomplete.
- identify, dollarize and measure the full range of financial and economic costs and benefits. One cost that has not been measured, for example, is the lost sales to customers whose service has not been reconnected because the reconnection charge poses a barrier to service. Another cost that has not been identified and measured is the revenue the Company loses because a low income customer had to pay a reconnection or accounts charge, leaving the customer with insufficient funds to make future payments toward current service.

**24.0 Reference: BCOAPO's Proposed T&Cs (Security Deposits)
Exhibit C2-12**

"I recommend that the Company's proposal to assess all new residential customers a cash security deposit be denied". (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 115/341, lines 1 to 2).

24.1 Please provide the basis of Mr. Colton's assertion that BC Hydro is proposing to assess all new residential customers a security deposit.

RESPONSE

Mr. Colton's Direct Testimony further states in relevant part, at page 105, lines 10-17 (Exhibit C2-12, PDF page 110/341):

"BC Hydro states it that can assess a security deposit in two situations: (1) when an applicant for service has not established credit satisfactory to BC Hydro; and (2) when an existing customer has not maintained a credit history satisfactory to BC Hydro. (Exhibit B-1, 2015 Rate Design Application, at 8-10). The Company assesses the likelihood that a new applicant for service will not pay his or her bill through factors that include references indicating good payment history with other utilities, or the customer's credit score which is obtained through an external credit rating agency (Equifax) (Exhibit B-1, 2015 Rate Design Application, at pages 8-10 – 8-11)."

**25.0 Reference: BCOAPO's Proposed T&Cs (Security Deposits)
Exhibit C2-12**

"The Company should be prohibited from imposing a cash security deposit on an applicant for service based on a credit rating from an external credit agency unless that credit rating is based exclusively on the prior utility bill payment history of the new applicant." (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 115/341, lines 11 to 14).

- 25.1 How would a would-be customer with no credit rating from another utility but otherwise with a good credit rating avoid a security deposit under Mr. Colton's proposal?

RESPONSE

A deposit would be imposed where BC Hydro determines that the applicant for new service has a bad credit history with a utility previously providing service to that applicant. Accordingly, an applicant with a good credit rating, but with no credit rating from another utility, would not be subject to a deposit.

**26.0 Reference: BCOAPO's Proposed T&Cs (Security Deposits)
Exhibit C2-12**

"Aside from the business aspects of the issue, to forbid the use of non-utility credit experience is consistent with long-standing utility regulatory principles proscribing the denial of service for "collateral" matters. It matters not to other ratepayers whether a household fails to pay its Hudson's Bay bill, for example, if that household will pay its utility bill." (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 117/341, lines 4 to 8).

- 26.1 Please provide supporting materials for the referenced "long-standing utility regulatory principles".

RESPONSE

Please see Charles Harak and Olivia Bae Wein, *Access to Utility Service: Regulated, De-Regulated and Unregulated Utilities, Deliverable Fuels, and Telecommunications*, 4th ed (National Consumer Law Center, 2008), pages 68-77 (online: http://bcpiac.com/wp-content/uploads/2016/06/Access-to-Utility-Service_4th-ED_pages-68-76.pdf) (also cited in BCOAPO's response to BCUC IR 15.2).

**27.0 Reference: BCOAPO's Proposed T&Cs (Security Deposits)
Exhibit C2-12**

"In the event that a household may not be able to afford a deposit, BC Hydro should offer that household an equal monthly payment plan as a deposit alternative. By reducing the risk of nonpayment, the deposit could be cost-effectively avoided or waived." (Exhibit C2-12, Direct Testimony of Roger Colton, PDF page 1227/341, lines 5 to 7)

- 27.1 How does an equal payment plan secure against the possibility of a customer not paying its bills?

RESPONSE

Equal payment plans levelize payments over the course of a year and take the spike off of seasonal variations. Equal payment plans have been found to improve the payment patterns of residential customers.

28.0 Reference: BCOAPO's Proposed Customer Assistance Unit Exhibit C2-12

"In this section of my testimony, I discuss the need for, and operation of, the skills-based low-income customer assistance unit that I recommend."
(Exhibit C2 12, Direct Testimony of Roger Colton, PDF page 127/341, lines 20 to 21).

28.1 Is the BCOAPO seeking an order from the Commission in this proceeding requiring BC Hydro to establish the proposed "low income customer assistance unit"?

RESPONSE

BCOAPO is not seeking an order from the Commission in this proceeding requiring BC Hydro to establish the proposed "low income customer assistance unit". BCOAPO does expect, however, that a Crown Corporation like BC Hydro will strive to implement best practices in its dealings with an increasingly significant percentage of its residential customer base, and it was to this end, *inter alia*, that it retained Mr. Colton.

28.2 If yes, please comment on the Commission's jurisdiction to order BC Hydro to establish such a business unit.

RESPONSE

Please see BCOAPO's response to BC Hydro IR 28.1. BCOAPO makes no comment on the Commission's jurisdiction to order BC Hydro to establish such a business unit. The Commission certainly possesses the jurisdiction to direct BC Hydro to report each year on the progress BC Hydro has made towards the important goal of addressing the customer service and bill payment needs of BC Hydro's approximately 170,000 customers who have incomes at or below Statistics Canada's LICO.

29.0 Reference: BCOAPO's Proposed Low Income Advisory Group Exhibit C2-12

"In this section of my testimony, I propose that BC Hydro create a standing Low-Income Advisory Group."

29.1 Is the BCOAPO seeking an order from the Commission in this proceeding requiring BC Hydro to establish the proposed "low income advisory group"?

RESPONSE

No.

29.2 If yes, please comment on the Commission's jurisdiction to order BC Hydro to establish such a group.

RESPONSE

Please see BCOAPO's response to BC Hydro IR1.29.1 above.

BCOAPO Attachment A to BC Hydro 19.2 Cost-Effectiveness of Proposed Low-Income Terms and Conditions

BC Hydro Information Request 1.19.2 to BCOAPO asks as follows: “Please provide the quantitative evidence for each of BCOAPO’s Proposed T&Cs that supports the assertion that the BCOAPO’s Proposed T&Cs, if adopted, will result in BC Hydro earning more revenue and incurring less expense.”

BCOAPO did not argue that its recommended Terms and Conditions would “result in BC Hydro earning more revenue and incurring less expense” as set forth in this question. BCOAPO certainly did not argue that meeting this conjunctive test was the basis of a cost-effectiveness analysis. BCOAPO witness Roger Colton instead argued that certain of the recommended Terms and Conditions would be “cost-effective.” He discussed the difference between a “cost-effectiveness” analysis and a “benefit-cost” analysis, the latter of which he found to be inappropriate.

Through a classic cost-effectiveness analysis, the merits of a program are assessed based on what is termed the “cost-effectiveness plane.” This cost-effectiveness plane consists of a two-dimensional assessment as follows:

4. E effective and more expensive	1. More effective and more expensive
3. Less effective and less expensive	2. More effective and less expensive

As Mr. Colton’s Direct Testimony stated (page 64:line 21 through page 65:line 6):

There are two sides to cost-effectiveness analysis. On the one hand, cost-effectiveness is used to identify the alternative that, for a given output level, minimizes the cost of achieving the output. On the other hand, cost-effectiveness is used to identify the alternative that, for a given cost, maximizes the level of output. From each perspective, the purpose of cost-effectiveness analysis is to ascertain which intervention (or program or measure, etc.) can achieve particular objectives at the lowest cost.¹ Both components of the analysis –the extent to which the objectives are achieved, on the one hand, and the cost of achieving on the other hand— are considered.

¹ Joseph Wholey, et al. (eds.) *Handbook of Practical Program Evaluation*, 3d ed. (New York: John Wiley & Sons, 2010); Henry Levin and Patrick McEwan (eds.), *Cost-Effectiveness Analysis: Methods and Applications*, 2d ed. (Thousand Oaks (CA): Sage Publications, 2001).

Given this overview, the discussion below provides the “quantitative evidence” establishing that certain of the Terms and Conditions recommended in Mr. Colton’s Direct Testimony are “cost-effective.”

Not all of the Terms and Conditions recommended by BCOAPO witness Roger Colton are set forth based on cost-effectiveness grounds. The Terms and Conditions discussed in Mr. Colton’s testimony include the following:

- Part 4.B: Cold weather shutoff protections
- Part 4.C: Shutoff protections for the very young, seniors and people with medical emergencies.
- Part 4.D: Deferred payment arrangements
- Part 4.E: Late payment charges
- Part 4.F: Exempting low-income customers from specified charges
- Part 4.G: Cash security deposits

The Terms and Conditions that are justified on a basis *other* than cost-effectiveness include the following:

- Part 4.B: Cold weather shutoff protections: justified on public health and safety grounds.
- Part 4.C: Shutoff protections for the very young, seniors and people with medical emergencies: justified on public health and safety grounds.
- Part 4.E: Late payment charges: justified on grounds that the late payment charge is neither cost-justified nor effective as an incentive to pay.

Accordingly, the Terms and Conditions that are justified on a cost-effectiveness basis include:

- Part 4.D: Deferred payment arrangements
- Part 4.F: Exempting low-income customers from specified charges
- Part 4.G: Cash security deposits

Deferred payment arrangements:

BC Hydro’s current system of deferred payment arrangements does not cost-effectively provide for the retirement of existing arrearages. An unachievable payment plan not only places the underlying debt in jeopardy, it places the bill for current service in jeopardy as well. Nearly 50% of BC Hydro’s payment plans that were two months in length defaulted. Between 64% and 75% of BC Hydro’s payment plans that were

BCOAPO Response to BC Hydro IR 19.2 – Attachment 1

between three and eight months in length defaulted. A lower percentage of payment plans with terms of 12 and 13 months respectively defaulted than payment plans with terms of four through eight months

Term	Total	# Default	Pct Default
1	343	105	31%
2	74,824	36,487	49%
3	31,788	20,381	64%
4	10,367	7,025	68%
5	4,211	2,982	71%
6	7,561	5,616	74%
7	2,247	1,586	71%
8	1,188	887	75%
9	793	550	69%
10	879	622	71%
11	627	439	70%
12	4,277	2,877	67%
13	1,908	1,206	63%

(Data source: BCOAPO 1.204.1, data extracted by BC Hydro on December 10, 2015).

These defaults place considerable revenue in jeopardy. The first set of revenue placed in jeopardy involves the billings that are included in the underlying arrearages. Nearly 60% of the Company's arrearages (in dollars) subject to payment plans 13 months or shorter are subject to payment plans that default.

No. of installments	Avg Installment	# in Arrs	Total Arrears	Pct Default	\$ Default	
1	\$383	343	\$131,485	31%	\$40,760	
2	\$290	74,824	\$21,717,171	49%	\$10,641,414	
3	\$289	31,788	\$9,184,675	64%	\$5,878,192	
4	\$314	10,367	\$3,260,107	68%	\$2,216,873	

BCOAPO Response to BC Hydro IR 19.2 – Attachment 1

5	\$289	4,211	\$1,218,639	71%	\$865,233	
6	\$190	7,561	\$1,433,152	74%	\$1,060,532	
7	\$201	2,247	\$452,251	71%	\$321,098	
8	\$265	1,188	\$314,830	75%	\$236,123	
9	\$195	793	\$154,392	69%	\$106,531	
10	\$189	879	\$166,457	71%	\$118,184	
11	\$138	627	\$86,740	70%	\$60,718	
12	\$115	4,277	\$493,912	67%	\$330,921	
13	\$74	1,908	\$140,265	63%	\$88,367	
Sum		141,013	\$38,754,075		\$21,964,946	56.7%

(Data source: BCOAPO 1.204.1, data extracted by BC Hydro on December 10, 2015).

One substantial reason for this default rate is that the installment payments imposed by BC Hydro are not affordable. Nearly 90% of BC Hydro's average monthly installments are not affordable, measured as a percentage of income. Payment plans that are five months or shorter require an average monthly income of between \$30,000 and \$40,000 for customers to be able to afford them.²

The before-tax LICO for a two-person family in Canada is approximately \$30,000. BC Hydro's payment plans, in other words, whether calculated on a monthly or on an annual basis, require incomes that far exceed anything close to LICO in order to be affordable. There should be little wonder that, routinely, 70% of the payment plans that BC Hydro enters into fail.

² For example, a payment plan with two installments has an average monthly installment payment of \$290. To be affordable on an annual basis at one percent (1%) of income, the household would need to have an income of nearly \$60,000 ($(\$290 \times 2) / .01$). To be affordable on a monthly basis at one percent (annual) income, the household would need to have an income of nearly \$350,000 ($\$249 / (.01 / 12)$).

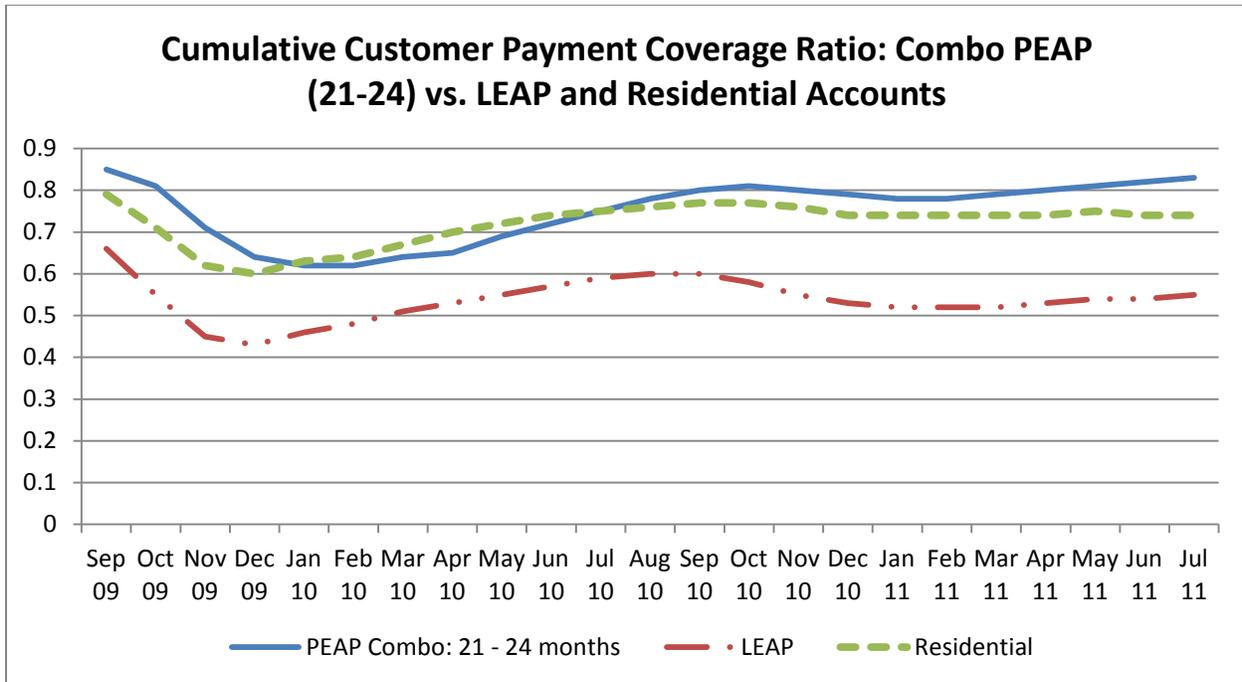
BCOAPO Response to BC Hydro IR 19.2 – Attachment 1

A	B	C	D	E	F
No. of installments	Average Monthly Installment	No. of Plans	Annual Affordability	Monthly Income Needed for Affordability	No. Five Installments or Less
1	\$383	343	0.01	\$38,334	
2	\$290	74,824	0.01	\$29,024	
3	\$289	31,788	0.01	\$28,894	
4	\$314	10,367	0.01	\$31,447	
5	\$289	4,211	0.01	\$28,939	121,533
6	\$190	7,561	0.01	\$18,955	
7	\$201	2,247	0.01	\$20,127	
8	\$265	1,188	0.01	\$26,501	
9	\$195	793	0.01	\$19,469	
10	\$189	879	0.01	\$18,937	
11	\$138	627	0.01	\$13,834	
12	\$115	4,277	0.01	\$11,548	
13	\$74	1,908	0.01	\$7,351	
Total		141,013			86.2%
Data in Column B and Column C from BCOAPO 1.204.1. Data in Column E and Column F calculated by BCOAPO.					

A customer who is unable to maintain a payment plan faces disconnection of service for nonpayment. In turn, when a customer is disconnected, the disconnection not only jeopardizes the account balance subject to the payment plan, but it jeopardizes the utility's receipt of any future revenue from the customer, as well as the bills for service incurred during the pendency of the payment plan. The Company has not considered these issues in assessing the structure and operation of payment plans in responding to nonpayment (BCOAPO 1.198.2). In particular, BC Hydro has not taken these into account in assessing the impact of payment plans on either bad debt (BCOAPO 1.199.01) or on arrearage balances (BCOAPO 1.200.01).

In contrast to the Company's approach, extending payment plans to reflect the monthly payment's affordability will more effectively and efficiently result in the collection of debt.

For example, the Figure below shows that in one Colorado study, when payments were made affordable to low-income customers (PEAP),³ their payment coverage ratio (payments as percent of bills) approached that of residential customers as a whole (Residential), far higher than low-income customers lacking an affordable payment (LEAP).⁴



Moreover, the Table below shows that in that Colorado study, low-income customers with affordable payments experienced far fewer months with arrears than when affordability was not taken into account. The Table makes clear that when payments are made affordable, two results can reasonably be expected: (1) far fewer customers will have an arrearage balance in a significant number of months; and (2) far more customers will have an arrearage balance in few, if any, months. For example, the customers who participate in PEAP for 21 to 24 months have an arrearage balance in 1 to 6 months in 33% of the case, compared to far fewer cases for both low-income customers in general and residential customers as a whole. In contrast, while the customer who was a PEAP participant for 21 – 24 months had arrears in 19 or more months from four percent to seven percent (4% - 7%) of the cases, low-income customers who lacked the affordable bill had such arrearage balances, as well as residential customers in general, had arrearages in roughly 20% or more instances, three to five times more frequently. Clearly, the offer of a more affordable payment improved the collection outcomes.

³ “PEAP” was Public Service Company of Colorado’s (PSCO) “Pilot Energy Assistance Program.”

⁴ “LEAP” is “Low-income Energy Assistance Program,” the Colorado administration of the federal Low-Income Home Energy Assistance Program. No LEAP participant is also included in the PEAP population for purposes of analysis. PEAP involved program participants while LEAP involved low-income non-participants.

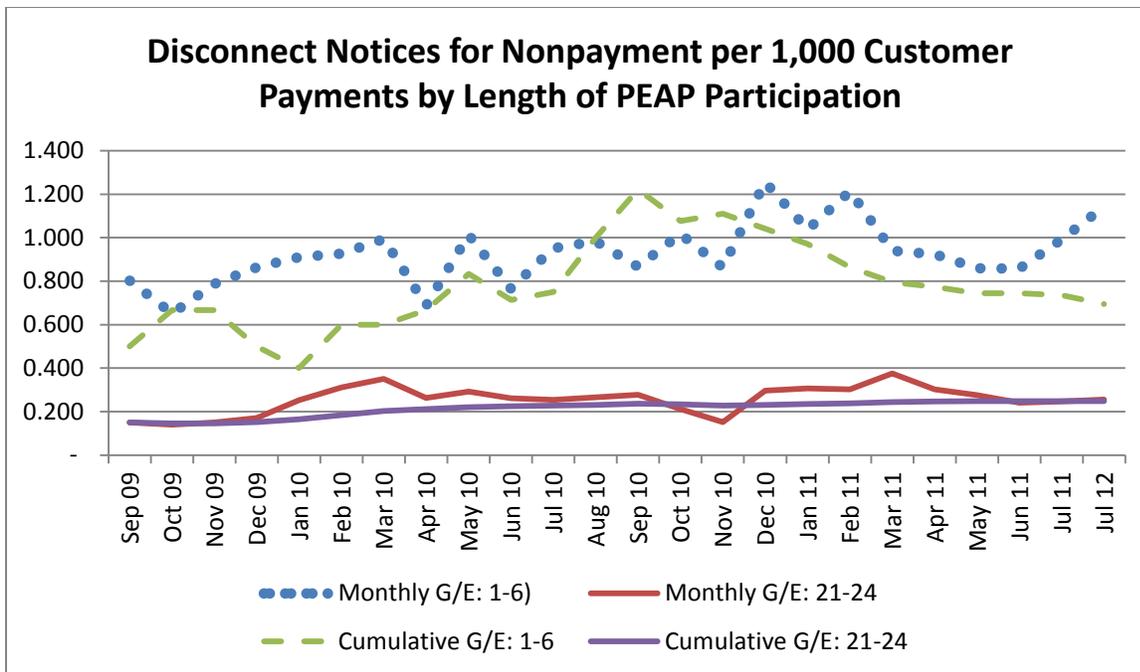
Percent of Accounts by Number of Months in Arrears in 24 Month Study Period										
Months in Arrears out of 24 Month Study Period	PEAP (G & E) (with EAP)		LEAP (by level of Month 1 Arrears)				Residential (by level of Month 1 Arrears)			
	1-6 months	21-24 months	LEAP (\$0)	LEAP (\$1 - \$250)	LEAP (>\$250)	LEAP (Total)	Res (\$0)	Res (\$1 - \$250)	(Res (>\$250))	Res (Total)
0	5%	20%	4%	1%	1%	2%	5%	0%	0%	2%
1-6	17%	33%	27%	13%	12%	20%	33%	14%	14%	23%
7-12	20%	20%	36%	9%	10%	21%	32%	12%	10%	21%
13-18	23%	15%	23%	21%	18%	21%	21%	20%	16%	20%
19-21	25%	7%	8%	27%	26%	18%	8%	22%	26%	17%
22-23	9%	4%	1%	29%	33%	17%	1%	30%	34%	18%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Count	524	3,356	1,405	1,016	649	3,070	1,111	876	505	2,492

Over time, this study in Colorado shows, the low-income customers with payments (having taken affordability into account) result in a far greater retirement of arrears than when arrears were not taken into account, even when low-income customers are compared to residential customers in general.

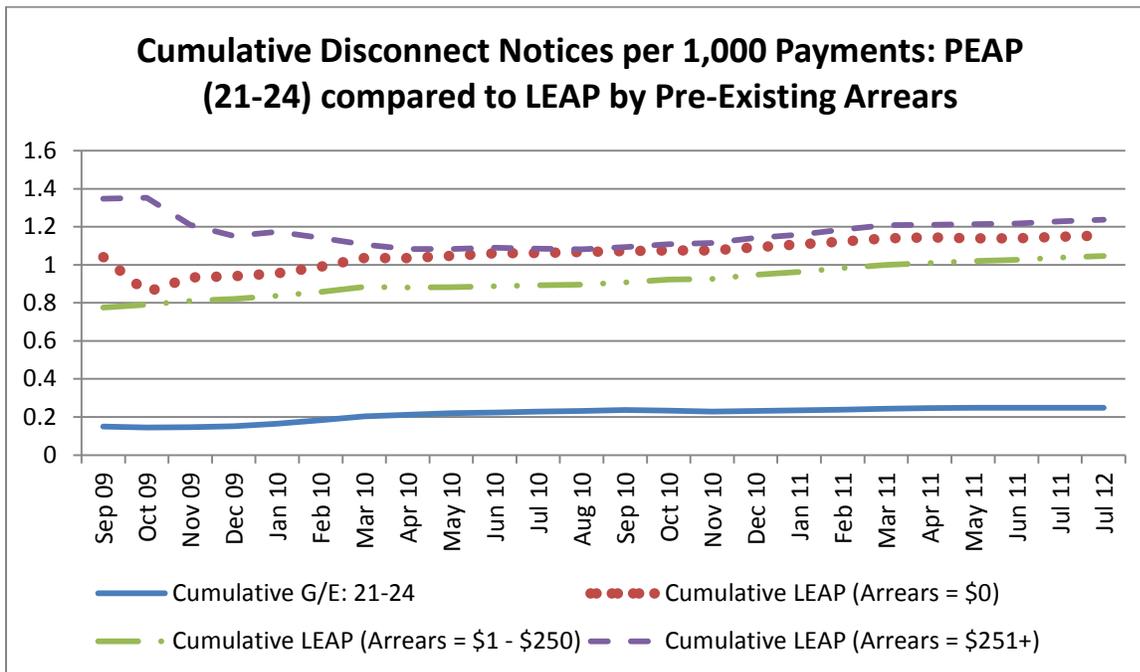
BC Hydro’s payment plan processes can be expected to result in a deteriorating payment pattern for customers in arrears. The data from Colorado in the Table below calculates a ratio for customers on an affordable payment plan and compares the results to low-income customers not on an affordable plan and to residential customers in general. In this ratio, the denominator is the level of arrears in Month 1. The numerator is the level of arrears in Month 23 of the 24 month study period. If the arrears for a household increased in that time period, the ratio will be greater than 1.0. The higher the Month 23 arrearage balance is relative to the beginning arrears, the higher the ratio will be. The Table below shows that placing low-income customers on a more affordable payment plan routinely results in better payment patterns as measured by this ratio.

Percent of Accounts by Ratio of Month 23 Arrears to Month 1 Arrears										
Ratio of Month 23 Arrears to Month 1 Arrears	PEAP (combination G/E) (by length of PEAP participation)		LEAP (by Month 1 arrears)				Residential (by Month 1 arrears)			
	1- 6 months	21-24 months	\$0	\$1-\$250	>\$250	Total	\$0	\$1 - \$250	>\$250	Total
0	48%	40%	---	9%	6%	8%	---	10%	7%	9%
.01 - .49	12%	10%	---	2%	12%	6%	---	3%	11%	6%
.50 - .99	17%	11%	---	8%	18%	12%	---	7%	20%	12%
1	0%	0%	---	0%	1%	0%	---	0%	0%	0%
>1	23%	38%	---	80%	63%	74%	---	80%	61%	73%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Zero Month 1 Arrears	31	1,251	202	-	-	202	172	-	-	172
Accounts with Month 1 Arrears	82	743	0	619	372	991	0	503	309	812

The data shows that not only does the utility collect more money, and collect that money in a more timely fashion when the payment plan takes affordability into account, but it works less hard to make the collection. The figure below shows that both in the short- and long-term, the number of collection activities that the utility must engage in for the purpose of collecting whatever payments it does collect is far lower when affordability is taken into account.



This is particularly true when the presence of arrears, and the level of those arrears, are factored into the analysis, as shown in the figure below.



When the increased completeness and timeliness of payments are taken into account, without seeking to dollarize the reduced costs of service or other benefits from the improved affordability, the Colorado utility collected more money, in a more timely fashion, with less collection effort, when the affordability of the payments were considered. Stated conversely, as shown in the Table below, low-income customers for

whom affordability was not taken into account, at all levels of arrears, would have paid less money than customers for whom payment affordability was taken into account. Any reduction in expenses—be they bad debt, or working capital, or credit and collection expenses—and any ancillary benefits (such as redirecting collection processes toward customers who can pay)—are additional benefits.

**Cumulative Dollars of Revenue Excess/(Deficit) if LEAP Bills Collected at the PEAP Customer Payment Coverage Ratio:
By Selected Months over 24-Month Study Period**

Population	Sep 09	Jan 10	May 10	Sep 10	Jan 11	May 11	Jul 11
LEAP (arrears = \$0)	\$24,441	\$28,563	\$48,546	\$12,920	(\$124,490)	(\$145,548)	(\$151,525)
LEAP (arrears = \$1 - \$250)	(\$5,129)	(\$40,180)	\$682	(\$41,075)	(\$134,006)	(\$148,060)	(\$154,442)
LEAP (arrears = \$251+)	(\$15,889)	(\$44,789)	(\$2,773)	(\$57,652)	(\$131,161)	(\$143,873)	(\$156,769)

Colorado is not the only jurisdiction finding these results. In contrast to the poor baseline performance currently existing with BC Hydro payment plans, utilities that take affordability into account in structuring their payments experience a dramatic improvement in the bill payment coverage ratios of their low-income customers. For example, consider the evaluation of the New Jersey Universal Service Fund.⁵ The New Jersey USF evaluation report shows the following for gas or electric customers (target affordable bill burden of 3%):

⁵ APPRISE, Inc. (April 2006). Impact Evaluation and Concurrent Process Evaluation of the New Jersey Universal Service Fund, prepared for the New Jersey Board of Public Utilities.

BCOAPO Response to BC Hydro IR 19.2 – Attachment 1

Distribution of Effective Coverage Rate by Net Energy Burden (gas or electric: 3%)				
Burden	Coverage Rate			
	< 50%	50% - <90%	90% - <100%	100% or more
<2%	0.0%	2.7%	5.3%	92.0%
2% - 3%	0.0%	6.0%	11.5%	82.5%
3% - 4%	0.0%	10.0%	13.2%	76.9%
4% - 6%	0.0%	11.6%	16.6%	71.6%
6% - 8%	0.4%	16.6%	17.4%	65.6%
More than 8%	1.0%	25.6%	16.1%	57.4%

As can be seen in the Table above, so long as the bill burden remained in the target range in New Jersey, from 94% to 97% of the low-income customers generated a bill payment coverage ratio over 90%. Indeed, between 83% and 92% of low-income program participants had a bill payment coverage ratio of 100% or more. These 90%-plus payment coverage rates stand in sharp contrast to the existing compliance with BC Hydro payment plans where more than half fail.

Similar results have arisen in Pennsylvania. Each year, the Pennsylvania PUC’s Bureau of Consumer Services (“BCS”) collects and reports data on the performance of the state’s “universal service” programs. The data collection allows policy-makers and utility service providers to compare the performance of low-income residential customers participating in the low-income bill affordability programs of Pennsylvania utilities (called Customer Assistance Programs, or “CAPs”) to the performance of “confirmed low-income” customers in general. In 2013 (the most recent year for which data is available), Pennsylvania utilities had 1.046 million confirmed low-income customer accounts statewide.⁶ The confirmed low-income accounts were heavily payment-troubled. Fifteen percent of these confirmed low-income customers had been disconnected for nonpayment in 2013, of which only 72% were reconnected. More than 22% of all confirmed low-income accounts were in debt, with those confirmed low-income customers having an average monthly arrears of \$656. Of those confirmed low-income accounts in arrears, fewer than half were on payment agreements.

⁶ Pennsylvania utilities had an *estimated* 1,987,364 number of low-income customer accounts. Accordingly, the utilities had “confirmed” roughly 53% of their estimated number of low-income accounts. Given that these numbers include both gas and electric utilities, however, it cannot be concluded that these numbers reflect “households.” Some accounts may be counted twice, once by the electric utility and again by the natural gas utility.

In contrast to these payment difficulties for confirmed low-income customers, the participants in the low-income CAP programs had an average payment coverage ratio of 86%. Through their affordability programs, in other words, Pennsylvania's utilities took extremely payment-troubled confirmed low-income customers and structured a response where the utilities were receiving nearly \$9 of every \$10 billed.

Finally, the same results were found in Indiana. A 2007 evaluation of the Citizen Gas and Coke Utility ("CGCU") low-income program (called, the Universal Service Program or "USP") found:⁷

Customers that participated in the Citizens Gas USP made substantively greater payments than did that company's nonparticipant population. Over the months of January through March 2007, USP participants paid 79% of their current utility bill. While billed \$273,627 during those winter months, the USP participants paid \$215,897. In contrast, the Citizen Gas nonparticipants paid only 64% of their January through March billings. While billed \$304,072, these customers paid \$194,577. As can be seen, the USP was better than revenue neutral to Citizens Gas. While USP participants were billed 90% of what nonparticipants were billed, they paid 111% what nonparticipants paid.⁸

As in the Colorado program, in other words, in Indiana, the increased payment performance was more than sufficient to offset the reduced billing. As a result, total revenues to the utility actually increased. While these results appertain to a low-income discount program, the same results would appertain to an even greater degree to a decision to extend deferred payment plan terms to more fully reflect ability to pay.

The benefits of more flexible payment terms were documented by Tacoma Public Utilities, as well, a municipal utility serving Tacoma (WA).⁹ The process of making deferred payment arrangements that customers simply cannot afford to fulfill, TPU found, is not without cost to the utility. Even if no additional customer staff is needed to respond to "broken" payment plans, the effort needed to respond to those customers subject to broken plans diverts staff away from other productive work.

Providing more reasonable payment plans is likely to generate additional revenue collection to the utility rather than placing more revenue at risk. TPU began to administer a pilot deferred payment plan program in November 2007. This pilot initiative was directed toward past-due accounts that had been sent to collections.¹⁰ Through this pilot, TPU offered more flexible payment arrangements than the standard

⁷ All dollar figures presented in this analysis, unless other explicitly noted to the contrary, are associated with the sample population and not the total population.

⁸ Colton (2007). *An Outcome Evaluation of Indiana's Low-Income Bill affordability programs*, prepared for Citizens Gas and Coke Utility, Vectren Energy, and Northern Indiana Public Service Company.

⁹ Colton (June 2009). *An Outcomes Planning Approach to Serving TPU Low-Income Customers*, prepared for Tacoma Public Utilities.

¹⁰ To be sent to collections, an account must have been final billed with an outstanding arrears. TPU assigns accounts to its collection agency for collection without selling those accounts to the agency.

offer through customer service representatives.¹¹ The payment plan pilot provides the following payment plan options:

Collection Account Payment Options			
If Customer Cannot Pay Any Downpayment		If Customer Can Pay 25% Downpayment	
Initial Balance	Payment Plan Term	Initial Balance	Payment Plan Term
Up to \$499.99	2 months	Up to \$499.99	3 months
\$500 - \$999.99	4 months	\$500 - \$999.99	6 months
\$1,000 - \$1,499.99	6 months	\$1,000 - \$1,499.99	9 months
\$1,500 or more	9 months	\$1,500 or more	12 months

If a customer fails to keep one payment arrangement, an additional arrangement will be provided with a downpayment of 25% plus all outstanding fees. If a customer fails to keep a second payment arrangement, no additional arrangement will be provided. All charges, including accrued interest, become immediately due.

In addition to the more flexible payment terms, TPU offered to waive its 1% per month interest payments on the new payment plan.

The results of the new flexible payment plan terms were encouraging. A comparison of collections outcomes between 2007 and 2008 documented a significant improvement in revenue recovery. This improvement occurred notwithstanding the economic crisis that enveloped the nation in the fall of 2008.

The two years presented virtually identical collections potential:

- While \$2,404,114 was assigned to collections in 2007, \$2,404,562 was assigned in 2008, an increase of \$449.
- While 7,798 accounts were assigned in 2007, 7,992 accounts were assigned in 2008, an increase of only 194 accounts.
- While an average arrears of \$308.30 was assigned to collections in 2007, an average arrears of \$300.87 was assigned in 2008, a decrease of \$7.43.

Despite the virtually identical circumstances, the collections outcomes were substantially more positive under the flexible collections terms.

- In absolute dollar terms, gross total collections increased by \$266,595 from 2007 to 2008. This represents an increase of more than one-third from \$741,336 in 2007 to \$1,007,930 in 2008.

¹¹ The standard offer involves a 50% downpayment with the balance paid before the next bill.

- The vast majority of the collections increase was returned to the utility. The \$266,595 was generated with an increase of only \$18,000 to the collection agency. In contrast, TPU netted \$248,614 through the new flexible terms.
- Of the increased collections of \$260,595, only \$6,321 was paid in additional dollars through TPU. The increased collections were driven by increased payments through the flexible terms offered by the collections agency, not by additional dunning activity on the part of the utility.
- The collection agency experienced an across-the-board increase in collections. In each month during 2008, the agency collected more than in the corresponding month of 2007. By the end of the year, the agency had more than doubled its annual collections, from \$228,109 in 2007 to \$488,377 in 2008, an increase of 114%. This doubling was generated from a cumulative total increased assignment of arrears to collections of less than \$500.
- The agency improvement stands in sharp contrast to the success of TPU dunning. In six months during 2008, payments to TPU were below the payments in the corresponding months of 2007. For the year, payments to TPU increased by something more than 1%.
- The improved collections appear to be continuing in 2009. While assignments to collection in the first two months of 2009 were actually less than in the first two months of 2007 (\$358,656 vs. \$362,700), the payments to the agency during that two-month period were nearly \$55,000 higher. In January and February 2009, the agency had collected an amount that it took more than five months to collect in 2007, even though the 2009 assignment to collections was lower.

Finally, the improved collections attributed to the agency could be viewed from the effective number of cleared accounts. In 2007, the agency collected \$228,104 off an average assignment of \$308 per account. The agency, in other words, effectively cleared 740 of the 7,798 accounts assigned to it ($\$228,104 / \$308 = 740$). In contrast, in 2008, the agency collected \$488,377 off an average assignment of \$301 per assigned account. The agency thus effectively cleared 1,490 of the 7,992 accounts assigned to it ($\$488,377 / \$301 = 1,490$). The agency was clearly not only more effective at generating additional dollars, but also more efficient in collecting revenue from the assigned accounts under the flexible payment terms process.

For TPU, it is possible to observe and conclude:

- A higher proportion of revenue assigned to collections was collected through the flexible payment plan terms;
- A higher percent of the dollars assigned to collections was being paid to TPU; and
- A higher percent of the dollars actually collected were being paid to TPU.

BC Hydro's insistence on pursuing its failed payment plan policy is not supported by a cost-effectiveness analysis. Moving to the more flexible payment plans for low-income customers, as recommended by Mr. Colton's Direct Testimony, is merited. The cost-effectiveness analysis supports both the lower downpayments and the longer terms (with a cap on payment plan installment payments) recommended by Mr. Colton.

Exemption from Specified Charges (account charges/minimum reconnection charges)

BCOAPO recommends that low-income customers be exempted from the Company's proposed minimum reconnection charge and from the Company's proposed account charges. BCOAPO challenges the Company's assertion that its charges reflect costs that are causally-related to the activities on which the fees are imposed. The Table below, for example, shows the monthly number of reconnections which the Company performed for the 23 months of June 2013 through April 2015. The Table shows a substantial variation in workload, both between years and within each year. From June 2014 to April 2015, for example, the number of monthly reconnections varied from a low of 1,877 (August 2014) to a high of 4,744 (October 2014). In four months, the company reconnected 2,200 or fewer accounts while in five other months, the company reconnected 3,000 or more accounts.

Month	Monthly Reconnects	12-Month Totals¹²
Jun-13	1,435	
Jul-13	1,749	
Aug-13	1,668	
Sep-13	2,147	
Oct-13	2,995	
Nov-13	2,089	
Dec-13	1,109	
Jan-14	2,098	
Feb-14	1,787	
Mar-14	2,167	
Apr-14	1,983	
May-14	2,526	23,753
Jun-14	2,120	
Jul-14	2,185	
Aug-14	1,877	
Sep-14	2,750	
Oct-14	4,744	
Nov/14	3,217	
Dec/14	1,942	
Jan/15	2,352	
Feb/15	3,263	
Mar/15	3,200	
Apr/15	3,002	30,652
Total	54,405	

¹² June 2014 through April 2015 is only an eleven month period.

The Company does not, however, decrease costs in the months or years that reconnections decrease or increase these costs in months or years when reconnections increase (BCOAPO 1.183.01; BCOAPO 1.196.1, BCOAPO 1.197.1). Instead, the Company maintains a customer service staff, the size of which is unrelated to the number of reconnections. The Company devotes its staff to the tasks that are the highest priority at the moment. The costs of the staff, and supporting resource needs (e.g., office space, transportation), are in no way caused by the number of reconnections to be performed. Indeed, in the eleven month period June 2014 through April 2015, the Company performed 30% more reconnections than in the preceding twelve month period. Nonetheless, since there is no causal connection between costs and activities, the Company could not demonstrate an increase in its total customer service budget.

The same analysis applies to the company’s proposed “account charge.” The table below shows the number of residential customers by month for the 19 month period January 2014 through July 2015. In some months (e.g., February 2014, August 2014, February 2015), the number of residential customers is noticeably lower than in other months. In other months (e.g., January 2014, December 2014, July 2014), the number of customers is noticeably higher. The conclusion to be reached is that there is a natural turnover in residential customers from month to month, whether the turnover leads to an increase or a decrease. This volatility does not take into account those customers who move, but stay in the BC Hydro service territory (thus not changing the customer count).

Month	Residential Customer Count
Jan-14	1,110,775
Feb-14	1,016,517
Mar-14	1,082,465
Apr-14	1,081,849
May-14	1,087,242
Jun-14	1,076,883
Jul-14	1,121,285
Aug-14	1,024,428
Sep-14	1,088,068
Oct-14	1,110,723
Nov-14	1,034,197
Dec-14	1,114,063
Jan-15	1,096,266
Feb-15	1,029,992
Mar-15	1,101,759
Apr-15	1,095,667
May-15	1,105,007
Jun-15	1,100,587
Jul-15	1,098,808

The way to establish a causal relationship, if any, between an activity and a cost is to determine the decremental cost if one fewer activity is performed. If, in contrast, the cost does not vary even in the absence of the activity, the lack of a causal link is evident. Causation cannot exist if the costs persist even in the absence of the activity.

A customer service charge (such as the reconnection fee or account charge), which is designed to compensate a utility for out-of-pocket collection expenses, should be based on the decremental cost of collection to the utility. In this fashion, the utility will be compensated for those costs, but only for those costs, that are incurred as a result of the need to engage in the customer service activity. A decremental cost is the cost that the utility would save should one fewer reconnection need to be made.

Instead of showing this causal connection, in this case, BC Hydro seeks to justify its customer service fees based on a fully-embedded cost analysis. This type of analysis posits that if, for example, a utility staff member spends 1/4 hour on reconnecting an account, and the utility staff salary is \$4 per hour, the reconnection has "cost" the utility \$1. The embedded cost analysis, in other words, assigns an expense to the activity and *per se* ascribes the cause of that expense to that activity. A decremental cost analysis approaches the issue in a somewhat different manner. The decremental analysis first calculates total utility costs *with* the reconnection. The analysis next calculates total utility costs *without* the reconnection. Only the difference is then assigned to the minimum reconnection fee. As is true with BC Hydro in this case, if the utility uses existing staff for the activity, the reconnection imposes no decremental cost on the utility. Incurring the costs is not "caused" by the need to engage in reconnection. The same analysis applies to the account charge.

This lack of a cost causation basis between the two fees (i.e., reconnect fee, account charge) and the activities on which they are imposed is an important part of BCOAPO's cost-effectiveness analysis as the fees relate to low-income customers. This is particularly true given that low-income customers are disproportionately disconnected for nonpayment (and then reconnected). Moreover, low-income customers are disproportionately mobile (and thus will be disproportionately more frequently charged an account charge). To the extent that low-income customers have an inadequate income to sustainably pay their bills, imposing a non-cost-based fee impedes, rather than advances, the Company's collection of its total revenue requirement. Mr. Colton presented an extensive discussion of the negative activities in which low-income customers engage in order to pay their bills. By this reference thereto, that discussion is incorporated herein as if fully set forth.

While the utility industry does not frequently study the order in which customers pay their bills, the data which exists provides "quantitative evidence" (in the terms of the IR question) documenting the conclusion that low-income households pay their utility bills first and that increasing their bills in a non-cost-based fashion threatens that payment.

A late 1985 Pennsylvania State University (Penn State) study looking at payment troubled households in Pennsylvania debunked the myth that nonpaying households

are characterized by "deadbeats."¹³ The Penn State study found that "payment troubled households are experiencing considerable socioeconomic stress when compared to the pattern for the average (general) customer sample." The Penn State study found that six of ten customers who had utility payment problems indicated that some unusual condition hindered timely payment of their utility bill. Employment related problems (such as being laid off, having reduced working hours, or being unemployed) were most frequently cited as the cause for the receipt of a shutoff notice as well as for the actual termination of service (22% for shutoff notice; 18% for termination of service). Unusually high medical expenses (resulting from hospitalization or illness) and unusually high bills (resulting from seasonal usage variations) were the second and third most common reasons cited for the termination of service. (19% and 18% percent respectively). The Penn State study concluded: "in view of the lower-income levels and higher number of dependents in the payment-troubled households when compared to the general sample, it is not surprising that these difficulties readily manifest themselves in the form of overdue bills."

In addition, the Penn State study found that payment troubled customers "made changes in their spending or lifestyle (or both) to deal with inflation and the high cost of energy." In general, the study found that "payment troubled groups report cutting back more on essentials such as food, clothing and medical care than the general sample, and they also cut back more in other areas such as recreation, vacations, and gasoline for automobiles." Indeed, the Penn State study reported that: "the payment-troubled groups, which may be living near or below the margin of adequacy for necessities, exhibit greater propensity to cut these items than the average residential consumer. Furthermore, the more serious the degree of utility payment problems, the higher the rate of reported cutbacks."

A similar empirical study by the Wisconsin Public Service Corporation was designed "to find out why customers pay late, why they miss payments, what percentage is unable to pay, and what percentage could pay but do not."¹⁴ The Wisconsin research broke the study population into five basic groups:

- The poor and the helpless who blame themselves for their status (19%).
- The poor and the helpless who are angry with their life (16%).
- The poor who are in transition (12%).
- People whose income should be sufficient to pay their utility bills, but who are poor money managers (41%).
- People who can pay their bills but do not (12%).

¹³ Hyman, et al., "Optimizing the Public and Private Effects of Utility Service Terminations," *Public Utilities Fortnightly*, at 29 (December 29, 1985).

¹⁴ Michael Kiefer & Ronald Grosse, "Why Utility Customers Don't Pay Their Bills," *Public Utilities Fortnightly*, at 41 (June 21, 1984).

Despite their low-incomes, households in the three low-income groups all reported that they choose to pay their utility bills first when making expenditure decisions.

1. In Group 1, when this group had to make choices in which bills to pay first, 79% reported that they pay the utility bill first.
2. In Group 2, when this group had to make choices in which bills to pay, 77% reported that they would pay the utility bill first.
3. In Group 3 when this group had to make choices in which bills to pay first, 79% reported that they would pay the utility bill first.

As can be seen, for each low-income group identified by the Wisconsin study, nearly eight of ten households said that, if a choice were forced between which bills to pay, they would pay their utility bill first.

This data are significant in assessing the cost-effectiveness of imposing non-cost-based minimum reconnection charges and account charges as a means of collecting revenue from low-income customers. Even in addition to the Direct Testimony of Seth Klein on behalf of BCOAPO in this proceeding, there is substantial empirical data documenting that low-income households are at the limit of their ability to pay. Increasing their financial obligations by imposing additional increments to their utility bills in the form of non-cost-based fees simply pushes these households further over the line of inability-to-pay, not only placing the collection of those fees in jeopardy, but placing the ability of such households to retain service in jeopardy. Illustrative of such evidence are studies that show:

1. Nutrition: One November 2006 article published in *Pediatrics*, the journal of the American Academy of Pediatrics, reports that a study of children 6 to 24 months of age in Boston (MA) found higher proportions of children with weight-for-age below the 5th percentile in the three months after the coldest months, compared with all of the other months of the year. The article reported further that: “In the United States, data show that families reporting unheated days or threats of utility turnoff are more likely to report that their children were hungry or at risk for hunger than families without either experience.”¹⁵
2. Public health: According to the periodic survey of National Energy Assistance recipients in the United States, the loss (and threatened loss) of home heating service has significant health consequences to low-income households with children. The National Energy Assistance Directors Association (“NEADA”) found that survey respondents reported becoming ill because their home was too cold in the winter heating months. Nearly 1-in-6 of all energy assistance recipients reported that someone in the home became sick because the home was too cold in the past five years. These illnesses were frequently severe enough to require

¹⁵ Frank, D., Neault, N., Skalicky, A., Cook, J., Wilson, J., Levenson, S., Meyers, A., Heeren, T., Cutts, D., Casey, P., Black, M., and Berkowitz, C. (2006). Heat or Eat: Low Income Home Energy Assistance Program and Nutritional Risk Among Children Under 3 Years Old. *Pediatrics*.

medical treatment. More than one-in-ten of the surveyed energy assistance recipients reported that someone in the home had become ill enough to require going to a doctor or hospital because the home was too cold in the past five years. The primary contributing factor to the adverse health outcomes involves the tendency of low-income households to keep their homes at unsafe or unhealthy temperatures, given the unaffordability of home energy to the household.

According to this series of survey studies published by NEADA,¹⁶ “despite. . .significant residential energy expenses, most low-income households pay their energy bills regularly. But at what cost?”. The NEA survey found that “LIHEAP recipients faced life-threatening challenges.”¹⁷

- 38% went without medical or dental care in order to have money to pay their home energy bill;
- 30% went without filling a prescription or taking the full dose of a prescribed medicine.
- 22% went without food for at least one day.

This data supports findings of the adverse social consequences of unaffordable home energy bills for low-income households. The data is not presented for this purpose in this discussion, however. The data also demonstrates that low-income households are on (if not over) the edge of their ability to pay. Discretionary income does not exist in the low-income household’s budget to pay increasing bills attributable to the imposition of non-cost-based reconnection fees and account charges. Imposing such charges, instead, is likely to result in unpaid bills and foregone service, both of which results harm not merely the low-income household, but all ratepayers as well.

In sum, given that we know that low-income customers routinely pay their utility bills first, the fact that they are making these other financial tradeoffs in order to do so shows that each dollar increase in the utility bills, particularly when that bill increase reflects non-cost-based charges, pushes these customers one step further away from sustainable bill payments.

Approving the fee exemptions proposed in Mr. Colton’s Direct Testimony is a cost-effective response to avoid making these non-cost-based contributions to this bill payment non-sustainability.

¹⁶ Apprise, Inc. (April 2005). *National Energy Assistance Survey Report*, National Energy Assistance Directors Association: Washington D.C. Similar survey studies, with similar results, have been published in 2003, 2008, 2009 and 2011.

¹⁷ LIHEAP is the Low-Income Home Energy Assistance Program, the federally-funded fuel assistance program in the United States.

Cash Security Deposits

Cash security deposits have very little impact on BC Hydro's ability to control bad debt and uncollectible accounts. The Company's analysis of its relationship between bad debt and security deposits is substantively flawed as discussed in Mr. Colton's Direct Testimony (page 107:line 13 through page 109:line 23). By this reference, that discussion is incorporated in this response as if fully set forth.

The imposition of security deposits on existing customers is a significant source of lost service to BC Hydro customers. The table below shows that more than 35,000 residential customers each year are threatened with the disconnection of service for nonpayment of a security deposit. The Company has made no effort to determine the extent to which the loss of revenue due to such disconnections will offset, in whole or part, the extent to which security deposits are applied to final bills with arrears to reduce bad debt. The mismatch between the imposition of a deposit, and the threat of bad debt as documented in Mr. Colton's Direct Testimony (page 107:line 13 through page 109, line 23), shows what an almost negligible contribution deposits make in this regard.

FINAL NOTICE OF DISCONNECTION FOR NON-PAYMENT OF SECURITY DEPOSIT		
Month	Monthly	12-Month Totals
13-Apr	3,096	
13-May	2,693	
13-Jun	2,666	
13-Jul	3,013	
13-Aug	2,545	
13-Sep	3,101	
13-Oct	3,007	
13-Nov	3,104	
13-Dec	3,264	
14-Jan	2,967	
14-Feb	3,496	
14-Mar	2,998	35,950
14-Apr	2,940	
14-May	3,064	
14-Jun	2,776	
14-Jul	2,875	
14-Aug	3,022	
14-Sep	2,861	
14-Oct	3,006	
14-Nov	3,083	
14-Dec	3,546	
15-Jan	2,856	
15-Feb	2,558	
15-Mar	2,712	35,299

Nor has the Company offset what it concedes to be a small amount by which deposits are applied to final bills with arrears (let alone to final bills with arrears resulting in bad debt) (as documented in Mr. Colton's Direct Testimony, page 109:lines 15-23), to the lost revenue associated with customers being off the system due to a disconnection. While the Company reports that it reconnects almost all customers who are disconnected (54,404 reconnected of 54,925 disconnected), the Company concedes that those reconnections are often preceded by a substantial time off the system.

According to information provided to BCOAPO by BC Hydro in August 2015, roughly 70% of accounts that are disconnected are reconnected the same or the next day (54.5% reconnected same day; 71.7% reconnected the same or the next day). In addition:

- 80.4 percent were reconnected within 4 days;
- 84.7 percent were reconnected with 7 days;
- 89.2 percent were reconnected within 14 days;
- 91.6% were reconnected with 21 days;
- 93.5 percent were reconnected within 30 days;
- 96.6 percent were reconnected within 60 days; and
- 99.0 percent were reconnected within 133 days.

Between January 2014 and April 2015, BC Hydro disconnected 54,925 residential customers (BC Hydro August 2014 Disclosure to BCOAPO for Mr. Colton's review of Terms and Conditions). Given the Company's report that one percent (1%) were not reconnected within 133 days (i.e., more than six months), the Company experienced 550 accounts that were off the system for more than six months. Each day and week while service is off represents lost sales and thus lost billings.

In contrast to the clear loss of revenue attributable to deposit demands, a disconnection of service, standing alone, provides no information as to the risk of revenue loss to BC Hydro. Indeed, most data supports the opposite conclusion: that the disconnection of service tends to successfully coerce payment from households in arrears, thus *minimizing* the risk of loss due to bad debt from those households. Moreover, not only are most households reconnected to the system, most households pay some substantial part (though not necessarily all) of their arrears before being reconnected to the system. As can be seen, therefore, the mere disconnection of service, standing alone, does not represent a risk of loss due to bad debt.

In deciding upon whether a deposit is justified, the risk of late payment should be distinguished from the risk of permanent loss. The costs associated with late payment cannot be addressed through a deposit. A deposit is to protect against loss due to bad debt. The disconnection of service, standing alone, is no indication of the risk of

permanent loss to the utility through bad debt. The risk of permanent loss is from households who permanently leave the system after a disconnection of service. It is the arrears of those households which end up in bad debt, not the arrears of households from whom BC Hydro receives a payment and thus reconnects. The data and discussion above clearly presents the “quantitative evidence” requested by the Company supporting the cost-effectiveness of BCOAPO’s proposed low-income Terms and Conditions regarding cash security deposits.

Summary and Conclusions

BC Hydro Information Request 1.19.2 to BCOAPO asks as follows: “Please provide the quantitative evidence for each of BCOAPO’s Proposed T&Cs that supports the assertion that the BCOAPO’s Proposed T&Cs, if adopted, will result in BC Hydro earning more revenue and incurring less expense.” The discussion above presents that requested “quantitative evidence.”