

REQUESTOR NAME: BCUC Commission Panel
INFORMATION REQUEST ROUND NO: Panel #1
TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY
DATE: May 30, 2007
PROJECT NO: 3698455
APPLICATION NAME: 2007 Rate Design Application (“2007 RDA”)

1. BCOAPO 1.7.5: the response indicates BCHydro considers its proposed methodology is correct for “rate rebalancing purposes,” but does not comment as to the suitability of the California methodology for achieving efficiency goals. Does BC Hydro believe that an allocation methodology based on marginal costs can produce “rate structures which encourage energy efficiency and conservation” and if not, why not? Please comment on the approach described in the question. Is the EPMC approach commonly used in California or elsewhere in North America? Please comment on the impacts on the various customer classes cited in the question.
2. BCOAPO 1.48.3: the response does not address the issue raised namely if it is inappropriate to condition BCHydro’s contributions to residential extensions on the basis of anticipated consumption (to discourage electric space heating), then why is it appropriate to do so for extensions involving the GS<35Kw group.
3. BCUC 1.1.1: the response indicates that the principal focus of the 1991 and 2007 RDA’s are similar. Given that, why was the criterion that “rates should reflect all present and future private and social costs and benefits” from the 1991 application the only one that is not brought forward to the 2007 application.
4. BCUC1.4.1&2: BCHydro proposes the Commission approve the Application on the basis that it will go forward and do a “rate strategy exercise” yet says that the outcome of that exercise will not be subject to approval by the Commission. This seems inconsistent not only within itself, but also with the direction (#4) given to the utilities and the Commission in the 2007 Energy Plan to pursue all cost effective and competitive DSM programs, including new rate structures. BCHydro is requested to reconcile these seemingly opposing views.
5. BCUC 1.5.1: the response characterizes certain of the proposals in the application as ensuring that “energy conservation and efficiency are not discouraged.” Given that, which of the measures proposed meet the efficiency objective claimed in the application of “providing efficient price signals at the margin, including appropriate price signals to encourage energy conservation and load management, to the extent practicable.”
6. BCUC 1.5.4: in the response, the average size of a residential “first block” equivalent to the “Heritage energy component” is identified as 825kWh/month. How many residential accounts average monthly usage is above and below that usage level? Also, please confirm that as the number of residential accounts goes up, all else equal, the size of the heritage energy block will decrease. What is BC Hydro’s forecast for the size of this block going forward (i) to 2016; and (ii) for the next 20 years.
7. BCUC 1.34.1: the response refers to 6000 GS<35kW accounts per month registering zero consumption. What is BCHydro’s view of the reason for this large number of dormant accounts, and is the number of such accounts increasing or decreasing.
8. CECBC 1.1.1: the response indicates that the CEO of BCHydro’s comment in April 2007 to the effect that a long term average residential usage reduction of 10% from today’s levels is required by 2020 is not addressed in the Application. BCHydro is requested to provide the analysis and calculations that support that statement. Given that the longer it takes to put more effective price signals in place to achieve that goal, the more

dramatic the necessary changes will be, could BCHydro explain why it is proposing that an extensive and time consuming strategy development process be undertaken as opposed to moving forward to implement more efficient rates in this Application.

9. COPE 1.1.3: BC Hydro states that it expects to see a reduction in demand from those customers that see a significant increase in their bills if the Application is approved while in the Application, BC Hydro makes the point that only small numbers of customers will see such “significant” increases. BC Hydro is requested to explain its reluctance to adopt rate design practices that would impact a greater number of customers and thus achieve a more efficient rate structure.
10. ESVI 1.14.1: in response BC Hydro provided Attachment 2, a Dec. 7, 1993 Decision of the Commission. At page 49, the Commission agreed with the observation that “BCHydro should provide pricing structure initiatives (e.g. load curtailment, regional rates, time-of use rates, real time pricing, inclined rates, marginal cost pricing, connection fees), and Power Smart should be an active participant in these initiatives to ensure full consideration is given to the role targeted DSM pricing options can play.” The Commission went on to say “ **BCHydro is encouraged to further pursue the integration of its Power Smart program with its rate design initiatives so that these two policies will complement one another and help achieve the objectives of Special Direction No. 8. [The] Commission expects significant evidence of achievement of this at the next hearing.**” BCHydro is requested to advise what steps were taken to comply with that direction, and how such steps have informed the proposals in the current Application.
11. JIESC 1.7.1: in response BCHydro provides revenue to cost ratio bands for several provinces with BC and ON at +/- 10%, and AB, SK, MAN, NB & NS at +/- 5%. In the latter group, how long has that band been in place, and what are the ratios in those provinces for the comparable rate classes to those in this Application. Does BC Hydro have any information concerning QC?
12. TGI 1.2.1: in the recent LTAP/IEP proceeding, BCH filed Long Range Incremental Cost data by region, yet has done its FACOS study that supports this application on a province wide basis. Given the direction from the Commission in question 10 above, BCHydro is requested to address why a regional approach to rate setting was not contemplated in this Application.
13. TGI 1.9.1: in response, BCH provides a chart that demonstrates that only residential, the two GS, and Transmission customer groups contribute meaningfully to the monthly coincident peak demand and further that the seasonal peak months are due in the main to residential customers. Given the dominant role played by the residential customer group, BC Hydro is requested to explain why the proposed rates only contemplate more effective pricing signals to the very narrow subsets of E+ customers and new customers contemplating electrical space heating.
14. BCOAPO 1.4.2 Attachment 1 speaks of Seasonal Rates. Please comment on what seasonal rates might look like for residential customers and the advantages and disadvantages of such a rate structure.
15. BCUC 1.41.3 sought a bill frequency analysis for the E Plus customers. Please provide monthly bill frequency analyses by kWh/month for BC Hydro’s Residential Classes (E Plus, Zone 1 and Zone II) for the most recent fiscal year

British Columbia Utilities Commission Panel Information Request No. 1.1.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 3
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

- 1.0** BCOAPO 1.7.5: the response indicates BC Hydro considers its proposed methodology is correct for “rate rebalancing purposes,” but does not comment as to the suitability of the California methodology for achieving efficiency goals. Does BC Hydro believe that an allocation methodology based on marginal costs can produce “rate structures which encourage energy efficiency and conservation” and if not, why not? Please comment on the approach described in the question. Is the EPMC approach commonly used in California or elsewhere in North America? Please comment on the impacts on the various customer classes cited in the question.

RESPONSE:

Rate rebalancing and rate restructuring are two distinct aspects of rate design.

Rate rebalancing addresses the issue of whether each rate class is bearing a fair share of the revenue requirement. The measure of whether a rate class is bearing a fair share of the revenue requirement is the revenue to cost ratio for that rate class. In BC Hydro’s view, a rate class with a revenue to cost ratio within the range of reasonableness of 90 per cent to 110 per cent is recovering the costs caused by that rate class.

In BC Hydro’s view, since rates are designed to recover the approved revenue requirement, and since the approved revenue requirement reflects embedded costs, the appropriate type of cost of service study for rate rebalancing purposes is a cost of service study that allocates embedded costs to rate classes.

A marginal cost of service study allocates costs to rate classes based on what the costs would be if the utility had to acquire all of its functions (generation, transmission, distribution and customer care) at the margin. Since marginal costs are generally higher than embedded costs, the total marginal cost of service would be higher than the embedded revenue requirement. To ensure that the rates in total do not collect more than the embedded revenue requirement, the costs allocated to each rate class in a marginal cost of service study must be reduced in order that the total costs match the embedded revenue requirement. One method of reducing the costs allocated to each rate class in a marginal cost of service study is the EPMC method.

A marginal cost of service study that is adjusted to match the embedded revenue requirement could result in different revenue to cost ratios for each rate class, which in turn could result in different rate rebalancing proposals. The following simplified example compares the costs that would be allocated to two rate classes if the marginal cost of energy were three times greater than the embedded cost of

British Columbia Utilities Commission Panel Information Request No. 1.1.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 2 of 3
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

energy but there was no difference between the marginal and embedded costs of transmission and distribution.

	Embedded Allocation			Marginal Allocation		
	Class A	Class B	Total	Class A	Class B	Total
Costs:						
Generation	500	500	1,000	1,500	1,500	3,000
Transmission	100	100	200	100	100	200
Distribution	400	0	400	400	0	400
Total Costs	1,000	600	1,600	2,000	1,600	3,600
Total Prorated				889	711	1,600
Revenue	975	625	1,600	975	625	1,600
R/C Ratio	97.5%	104.2%	100.0%	109.7%	87.9%	100.0%

As can be seen in the above example, the total costs to be recovered from customers are the same in both cases. However, since generation costs make up a higher proportion of the total costs for Class B, the revenue to cost ratio drops for Class B under a marginal cost allocation. This occurs because the benefit of the lower cost embedded generation is allocated to customer classes based on their total marginal costs, which in the case of Class A also includes some distribution costs. As a result, some of the benefits of the lower cost embedded generation are reallocated from Class B to Class A if marginal costs are used to allocate the embedded revenue requirement.

In BC Hydro's view, allocating the embedded revenue requirement based on what BC Hydro's costs would be if BC Hydro were to obtain all of its generation, transmission, distribution and customer care at the margin does not reflect the actual costs of BC Hydro's system, and is therefore not appropriate for rate rebalancing purposes.

To the best of BC Hydro's knowledge, no Canadian utilities use a marginal cost of service study to allocate the embedded revenue requirement to rate classes. BC Hydro does not have any information on the use of marginal cost of service studies to allocate embedded revenue requirements to rate classes in the United States.

Regardless of the type of cost of service study used to allocate the embedded revenue requirement to rate classes, rates can be rebalanced without being restructured. For example, a rate can be rebalanced by increasing or decreasing each component of the rate by the same percentage. Therefore, even if marginal costs were used to allocate the embedded revenue requirement to rate classes, existing rate structures (such as the declining energy block on the GS > 35 kW rate) could be maintained.

British Columbia Utilities Commission Panel Information Request No. 1.1.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 3 of 3
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

Similarly, rate restructuring is independent of the type of cost of service study used to allocate the embedded revenue requirement to rate classes. As indicated in the response to BCUC IR 1.7.5, information on marginal costs, particularly marginal energy costs, is useful in the design of rate structures. For example, general knowledge of the magnitude of marginal energy costs in B.C. is sufficient information to conclude that the declining energy block structure in the GS > 35 kW rate is no longer appropriate. For rate restructuring purposes, and in particular for the purposes of designing rates to assist meeting the conservation objectives set out in the 2007 Energy Plan, it is not necessary or helpful to use a marginal cost of service study to allocate the embedded revenue requirement to rate classes.

British Columbia Utilities Commission Panel Information Request No. 1.2.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

- 2.0 BCOAPO 1.48.3: the response does not address the issue raised namely if it is inappropriate to condition BC Hydro's contributions to residential extensions on the basis of anticipated consumption (to discourage electric space heating), then why is it appropriate to do so for extensions involving the GS<35Kw group.

RESPONSE:

A consequence of BC Hydro's proposed changes to the distribution extension policy is that contributions paid by electric space heating customers will be higher than under the existing extension policy. However, the objective of the proposed changes was to simplify the policy, not to discourage electric space heating.

Distribution extensions must be sized to meet a customer's peak demand, regardless of the customer's load factor (energy consumption). Since the range of demands for residential customers is relatively narrow, a BC Hydro contribution of \$1,900 applicable to all new residential customers is appropriate.

The range of demands for the GS < 35 kW class is much wider than for the residential class. If BC Hydro were to contribute the same amount to each new GS < 35 kW class, the allowance would be approximately \$3,300 per customer. This allowance would apply to customers with loads smaller than a typical residential customer (such as phone booths or billboards) as well as to larger general service customers with loads that may be five or more times greater than a typical residential customer. In BC Hydro's view, a single allowance for all GS < 35 kW loads would be too generous for smaller customers on the rate and too low for larger customers on the rate. Therefore, notwithstanding that the GS < 35 kW rate does not have a demand charge, BC Hydro is proposing an allowance for the GS < 35 kW class based on the customer's expected demand, consistent with the proposed allowance for the GS > 35 kW class.

British Columbia Utilities Commission Panel Information Request No. 1.3.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

- 3.0 BCUC 1.1.1: the response indicates that the principal focus of the 1991 and 2007 RDA's are similar. Given that, why was the criterion that "rates should reflect all present and future private and social costs and benefits" from the 1991 application the only one that is not brought forward to the 2007 application.

RESPONSE:

BC Hydro considers that the referenced rate design attribute, while not explicitly listed as one of the rate design criteria on page 27 of the 2007 RDA (Exhibit B-1), is encompassed within the criteria of "price signals that encourage efficient use and discourage inefficient use", which itself is aligned with efficiency, as one of the three rate design objectives of BC Hydro's current application. This objective is described on page 1 of the Application as "including appropriate price signals to encourage conservation and load management, to the extent practicable".

British Columbia Utilities Commission Panel Information Request No. 1.4.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

- 4.0 BCUC1.4.1&.2: BCHydro proposes the Commission approve the Application on the basis that it will go forward and do a "rate strategy exercise" yet says that the outcome of that exercise will not be subject to approval by the Commission. This seems inconsistent not only within itself, but also with the direction (#4) given to the utilities and the Commission in the 2007 Energy Plan to pursue all cost effective and competitive DSM programs, including new rate structures. BCHydro is requested to reconcile these seemingly opposing views.

RESPONSE:

The evidence BC Hydro has placed on the record regarding its future plans, including the development of a long term rate strategy, is meant to provide the context within which its current rate proposals may be assessed. BC Hydro does not believe that such rate planning initiatives are within the purview of BCUC review, at least insofar as the BCUC might be inclined to disapprove them or disallow them. In this regard BC Hydro distinguishes between its rates, which clearly are at the core of the BCUC's jurisdiction, and the expenditures it expects to incur to "reduce demand for energy" (section 45(6.1) of the UCA) which are also within the BCUC's jurisdiction, and its plans to develop a rate strategy, which are not.

As BC Hydro noted in the referenced IR response, it expects that it will have to assess its demand side management expenditures in its next LTAP in light of the extent to which it may be able to achieve its conservation goals through rate design. Thus the long term rate strategy is quite likely to be in evidence in the next LTAP proceeding. Nevertheless, this is not the same thing as applying for its approval.

British Columbia Utilities Commission Panel Information Request No. 1.5.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

- 5.0 BCUC 1.5.1: the response characterizes certain of the proposals in the application as ensuring that “energy conservation and efficiency are not discouraged.” Given that, which of the measures proposed meet the efficiency objective claimed in the application of “providing efficient price signals at the margin, including appropriate price signals to encourage energy conservation and load management, to the extent practicable.”

RESPONSE:

Under BC Hydro’s current rates, E-Plus customers receive a discount for electric heating loads and GS > 35 kW customers have a declining energy block, both of which may be seen as discouraging energy conservation and load management. BC Hydro used the phrase “not discouraged” in the response to BCUC IR 1.5.1 to emphasize that a necessary first step in providing more appropriate price signals to encourage energy conservation and load management is to phase-out the discount for E-Plus electric heating loads and to flatten the energy charge on the GS > 35 kW rate.

British Columbia Utilities Commission Panel Information Request No. 1.6.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

6.0 BCUC 1.5.4: in the response, the average size of a residential “first block” equivalent to the “Heritage energy component” is identified as 825kWh/month. How many residential accounts average monthly usage is above and below that usage level? Also, please confirm that as the number of residential accounts goes up, all else equal, the size of the heritage energy block will decrease. What is BC Hydro’s forecast for the size of this block going forward (i) to 2016; and (ii) for the next 20 years.

RESPONSE:

With respect to residential energy consumption, approximately:

- **38 per cent of customers consume less than 825 kWh/month every month of the year;**
- **15 per cent of customers consume more than 825 kWh/month every month of the year; and**
- **47 per cent of customers consume less than 825 kWh/month in some months of the year and more than 825 kWh/month in other months of the year.**

BC Hydro confirms that as the number of residential accounts goes up, all else being equal, the size of the Heritage Energy block per residential account would decrease.

BC Hydro expects that, all else being equal, the size of the Heritage Energy block per residential account would decrease to approximately 730 kWh/month by 2016 and to approximately 635 kWh/month by 2026, based on the December 2006 load forecast.

For clarity, BC Hydro is not proposing this rate, and this response is based on the parameters provided in the original information request, BCUC IR 1.5.4.

British Columbia Utilities Commission Panel Information Request No. 1.7.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

7.0 BCUC 1.34.1: the response refers to 6000 GS<35kW accounts per month registering zero consumption. What is BCHydro's view of the reason for this large number of dormant accounts, and is the number of such accounts increasing or decreasing.

RESPONSE:

Accounts registering zero consumption (which BC Hydro clarifies to mean 30 kWh or less per month), are mainly a result of:

- (a) premise vacancies that mostly happen due to real estate transactions and occupancy transition; and, to a lesser degree**
- (b) temporary service (construction and business) situations.**

BC Hydro records indicate a slight decrease in the number of zero consumption accounts from F2005 to F2006.

British Columbia Utilities Commission Panel Information Request No. 1.8.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

8.0 CECBC 1.1.1: the response indicates that the CEO of BC Hydro's comment in April 2007 to the effect that a long term average residential usage reduction of 10% from today's levels is required by 2020 is not addressed in the Application. BC Hydro is requested to provide the analysis and calculations that support that statement. Given that the longer it takes to put more effective price signals in place to achieve that goal, the more dramatic the necessary changes will be, could BC Hydro explain why it is proposing that an extensive and time consuming strategy development process be undertaken as opposed to moving forward to implement more efficient rates in this Application.

RESPONSE:

Mr. Elton was referencing the 2007 Energy Plan (see the response to ESVI IR 1.6.1) which states that current average household electricity consumption is about 10,000 kWh per year and that in order to achieve the conservation target electricity use per household will need to drop to approximately 9,000 kWh per year by 2020, or 10 per cent.

BC Hydro is of the view that it is important to ensure that any new rate designs be developed with consideration to the unique characteristics of the British Columbia market, such as its current low rates in comparison to other jurisdictions in North America and the relatively high awareness of conservation among BC Hydro's customers. The experiences of other utilities in introducing new rate structures can help inform BC Hydro's rate design development, but alone cannot be used as a predictor of any one rate design's success in British Columbia. Pilot projects, among other things, are also required. BC Hydro also needs to better understand the level of demand response that rate increases will elicit.

BC Hydro notes that at the procedural conference in May 2006 regarding the review of the 2006 IEP/LTAP, and in subsequent Information Request responses and witness testimony in that proceeding, BC Hydro was clear that the contribution of conservation based rate structures to the overall DSM target would be reviewed in the context of, and as a component of, the DSM Implementation Plan, not as part of any RDA. It is currently expected that the DSM Implementation Plan will form part of BC Hydro's 2008 LTAP. BC Hydro is also of the view that it is necessary to take the time to develop its rate design carefully to ensure that there is co-ordination between rates and DSM programs.

Introducing new rates effectively is a time consuming process. BC Hydro notes that it took almost three years to develop, get approval for and finally implement stepped rates for its transmission customers, and much of this time was spent consulting with customers and stakeholders. BC Hydro will continue to require effective communication with these groups as it implements the components of its long term rate strategy.

British Columbia Utilities Commission Panel Information Request No. 1.9.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

- 9.0 COPE 1.1.3: BC Hydro states that it expects to see a reduction in demand from those customers that see a significant increase in their bills if the Application is approved while in the Application, BC Hydro makes the point that only small numbers of customers will see such “significant” increases. BC Hydro is requested to explain its reluctance to adopt rate design practices that would impact a greater number of customers and thus achieve a more efficient rate structure.

RESPONSE:

Please refer to the response to BCUC IR 1.5.1, which notes that this Application is the beginning and foundation of a rate restructuring process that will be built upon in future applications.

BC Hydro believes that a measured approach to rate restructuring that recognizes the link between DSM initiatives, rates and the need to have customers maintain their trust in BC Hydro is appropriate to perpetuate positive customer engagement in DSM programs while managing potential bill impacts.

British Columbia Utilities Commission Panel Information Request No. 1.10.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

10.0 ESVI 1.14.1: in response BC Hydro provided Attachment 2, a Dec. 7, 1993 Decision of the Commission. At page 49, the Commission agreed with the observation that "BCHydro should provide pricing structure initiatives (e.g. load curtailment, regional rates, time-of use rates, real time pricing, inclined rates, marginal cost pricing, connection fees), and Power Smart should be an active participant in these initiatives to ensure full consideration is given to the role targeted DSM pricing options can play." The Commission went on to say "BCHydro is encouraged to further pursue the integration of its Power Smart program with its rate design initiatives so that these two policies will complement one another and help achieve the objectives of Special Direction No. 8. [The Commission expects significant evidence of achievement of this at the next hearing." BCHydro is requested to advise what steps were taken to comply with that direction, and how such steps have informed the proposals in the current Application.

RESPONSE:

Subsequent to the BCUC's decision regarding BC Hydro's 1994 RRA, BC Hydro and the BCUC became involved in litigation regarding the BCUC's jurisdiction over BC Hydro's resource planning. This was followed by a period of time during which BC Hydro's rates were legislatively frozen, and during which electricity industry de-regulation seemed to be radically changing the way in which energy utilities would be doing business. As with many other utilities, BC Hydro's early 1990s DSM initiatives lost their impetus.

BC Hydro's DSM activities regained their importance again in F2002, with the re-launch of Power Smart. Notably, the re-launch of Power Smart and the renewed commitment to DSM occurred prior to BC Hydro's return to rate regulation. Thus it was not practical for rate design and DSM to be coordinated at the outset of BC Hydro's renewed focus on DSM. However, as noted in BC Hydro's response to BCUC Panel IR 1.4.0, BC Hydro expects that the next phase of its DSM initiatives - EE 3, 4 and 5 - will in fact be coordinated with its rate design initiatives as part of the review of BC Hydro's next LTAP. It has further stated that the 2007 RDA - the first BCUC review of BC Hydro's cost of service in about 16 years - is a necessary foundation for any further rate design initiatives.

In summary, BC Hydro believes that this application, and its plans regarding the review of EE 3, 4 and 5 in the next LTAP in light of the role that can be played by rate design in demand side management, manifest substantial compliance, in the circumstances, with the referenced BCUC direction.

Further information on BC Hydro's recent regulatory history can be found in the response to CORIX IR 1.1.1.

British Columbia Utilities Commission Panel Information Request No. 1.11.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 2
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

11.0 JIESC 1.7.1: in response BC Hydro provides revenue to cost ratio bands for several provinces with BC and ON at +/- 10%, and AB, SK, MAN, NB & NS at +/- 5%. In the latter group, how long has that band been in place, and what are the ratios in those provinces for the comparable rate classes to those in this Application. Does BC Hydro have any information concerning QC?

RESPONSE:

The information that BC Hydro has on the revenue to cost ratios in the other provinces is provided below. The information was obtained from regulatory decisions or from utility applications as noted. Most utilities have more than one general service rate and more than one industrial rate. For these utilities, the range of revenue to cost ratios for the general service and/or industrial classes is provided. The definition of the general service rate classes and industrial rate classes is not consistent from province to province.

Many of the revenue to cost ratios are outside of the target range of reasonableness in these provinces of 95 per cent to 105 per cent. BC Hydro does not have any information on how long the 95 per cent to 105 per cent range of reasonableness has been in place in these provinces.

BC Hydro does not have any information on the revenue to cost ratios in Quebec.

British Columbia Utilities Commission Panel Information Request No. 1.11.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 2 of 2
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

	<u>BC Hydro</u>	<u>Fortis Alberta Inc</u>	<u>Sask Power</u>	<u>Manitoba Hydro</u>	<u>NB Power</u>	<u>NS Power</u>
	Application Apr-08	Application Feb-06	Application Oct-06	Application Mar-04	Board Approved 2006/2007	2006 NSUARB 23 2006
Residential	95.0%	102.0%	98.0%	93.8%	95.3%	98.4%
General Service and Commercial	103.3% to 108.6%	103.0% to 122.0%	101.0%	96.6% to 110.2%	115.4% to 115.5%	97.3% to 105.0%
Industrial	-	116.0%	101.0%	97.1% to 107.9%	95.3% to 99.8%	95% to 102.2%
Farm / Irrigation	70.9%	74.0% to 88.0%	98.0%	-	-	-
Street Lights / Unmetered	103.0%	94.0%	100.0%	110.8%	150.4%	100.9%
Transmission / Wholesale	101.6%	-	101.0%	-	103.5%	-
Oil and Gas Pumping	-	89.0%	101.0%	-	-	-

British Columbia Utilities Commission Panel Information Request No. 1.12.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

12.0 TGI 1.2.1: in the recent LTAP/IEP proceeding, BCH filed Long Range Incremental Cost data by region, yet has done its FACOS study that supports this application on a province wide basis. Given the direction from the Commission in question 10 above, BC Hydro is requested to address why a regional approach to rate setting was not contemplated in this Application.

RESPONSE:

In the absence of any indication to the contrary (neither of the 2002 or 2007 Energy Plans address the issue), BC Hydro considers that postage stamp rates throughout Zone I and Zone II respectively are consistent with current government policy.

Please also refer to the response to BCUC IR 1.62.3.

British Columbia Utilities Commission Panel Information Request No. 1.13.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

13.0 TGI 1.9.1: in response, BCH provides a chart that demonstrates that only residential, the two GS, and Transmission customer groups contribute meaningfully to the monthly coincident peak demand and further that the seasonal peak months are due in the main to residential customers. Given the dominant role played by the residential customer group, BC Hydro is requested to explain why the proposed rates only contemplate more effective pricing signals to the very narrow subsets of E+ customers and new customers contemplating electrical space heating.

RESPONSE:

The cost of service study incorporates the seasonal patterns of each rate class in the allocation of costs to rate classes. Therefore, for example, the revenue to cost ratio for the residential rate class already incorporates the contribution of the residential class to the monthly system coincident peak demands. Since the resulting revenue to cost ratio for the residential rate class is within the range of reasonableness of 90 per cent to 110 per cent, the residential rate class is recovering the costs caused by that class.

Please also refer to the response to BCUC Panel IR 1.14.0.

British Columbia Utilities Commission Panel Information Request No. 1.14.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 1
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

14.0 BCOAPO 1.4.2 Attachment 1 speaks of Seasonal Rates. Please comment on what seasonal rates might look like for residential customers and the advantages and disadvantages of such a rate structure.

RESPONSE:

BC Hydro is considering alternative structures for the residential rate as part of the development of its long term rate strategy.

A seasonal rate for residential customers could have between two and four seasons, with the energy rate varying by season.

The seasons could be the same as the three seasons currently used in the optional TOU rate for Transmission customers - winter (November through February), spring (May and June) and the remaining months. Like the optional TOU rate for Transmission customers, the energy rate would be highest in the winter months and lowest in the spring months.

Advantages of such a rate structure include:

- **Higher rates in the winter months would provide a more efficient price signal.**
- **This form of seasonal rate could be implemented with existing metering.**

Disadvantages of such a rate structure include:

- **The increase in the winter rate (compared to the current year-round rate) might not be sufficient for any material demand response.**
- **The lower rate in the non-winter months (compared to the current year-round rate) could result in increased consumption in the non-winter months, for example for summer air-conditioning.**
- **Seasonal rates would result in increased billing and customer care costs.**
- **Seasonal rates would require adjustments to the scheduling and frequency of meter reading, in order to align billing periods with the seasonal pricing periods. In the absence of automated metering this would increase meter reading costs.**
- **Seasonal price signals are largely muted for customers on the Monthly Equal Payment plan.**

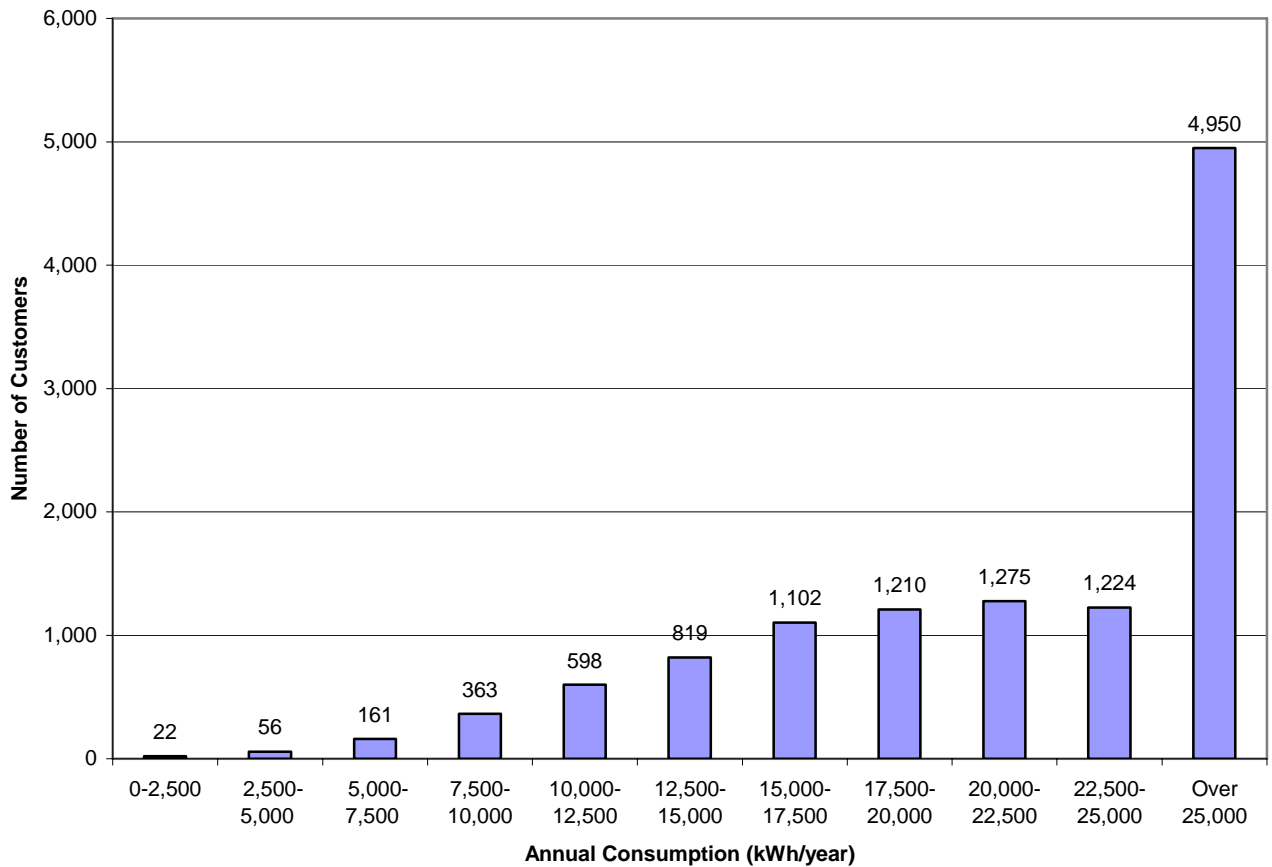
British Columbia Utilities Commission Panel Information Request No. 1.15.0 Dated: May 30, 2007 British Columbia Hydro & Power Authority Response issued June 15, 2007	Page 1 of 3
British Columbia Hydro & Power Authority BC Hydro 2007 Rate Design Application	Exhibit: B-10

15.0 BCUC 1.41.3 sought a bill frequency analysis for the E Plus customers. Please provide monthly bill frequency analyses by kWh/month for BC Hydro's Residential Classes (E Plus, Zone 1 and Zone II) for the most recent fiscal year

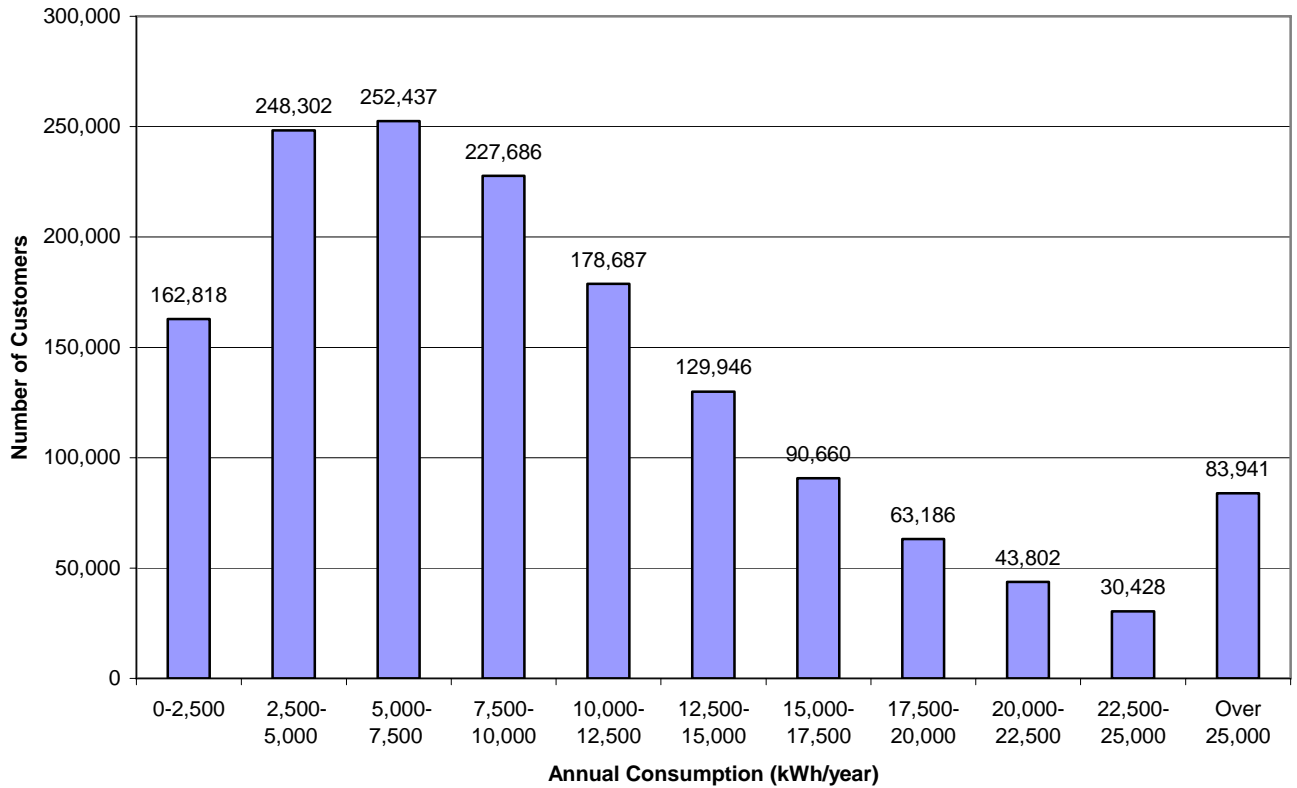
RESPONSE:

In order to be consistent with BC Hydro's responses to other IRs, the annual (rather than monthly) bill frequency analysis by kWh/year for BC Hydro's E-Plus customers (which includes E-Plus meters and main account meters), residential Zone I customers (excluding E-Plus customers), and residential Zone II (excluding E-Plus customers) are provided below.

Annual Consumption for Residential E-Plus Accounts - Both Meters



**Annual Energy Consumption for Zone I
Residential Non-E-Plus Accounts**



**Annual Energy Consumption for Zone II
 Residential Accounts**

