



IN THE MATTER OF

FORTISBC INC.

RESIDENTIAL INCLINING BLOCK RATE

DECISION

January 13, 2012

BEFORE:

D. Morton, Panel Chair/Commissioner

L.A. O'Hara, Commissioner

M.R. Harle, Commissioner

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1.0 EXECUTIVE SUMMARY

This Decision relates to an application filed by FortisBC Inc. (FortisBC, the Company) to introduce Residential Inclining Block (RIB) rates in its service territory. The filing is in response to an earlier British Columbia Utilities Commission (Commission) directive in Order G-156-10 following FortisBC's 2009 Rate Design and Cost of Service Analysis (2009 RDA) proceeding. A RIB rate is intended to promote conservation by employing a tiered rate structure in which consumption that occurs above a certain threshold level is billed at a higher rate. The higher tier rate is designed to incent customers to reduce their consumption.

The proceeding was conducted as a written hearing. There were 15 Registered Interveners, of which five filed submissions: the BC Sustainable Energy Association (BCSEA), Mr. Andy Shadrack, Nelson Hydro, British Columbia Old Age Pensioners' Organization *et al.* (BCOAPO), and Strata Corporation KAS2464 (Strata KAS2464). The Applicant originally filed 18 different RIB rate options, all with the same basic structure of a Customer Charge, a threshold, and two block rates. During the hearing, a considerable number of additional options were explored. The Applicant submits that Option 8, with the following components:

- A Customer Charge of \$29.65 per billing period;
- A bi-monthly threshold of 1,600 kWh;
- A Block 1 rate of 8.453 cents per kWh; and
- A Block 2 rate of 12.408 cents per kWh.

is the most effective approach. The Option 8 charges shown above assume an implementation date of January 1, 2012. This option is approved as requested. The Panel also approves FortisBC's proposed Pricing Principle 1, which governs how the RIB prices will be calculated in subsequent years. FortisBC is directed to apply Pricing Principle 1 to future rate increases for the years 2012 to 2015. Specifically:

- a. The Customer Charge is exempt from general rate increases, other than rate rebalancing increases;
- b. The Block 1 rate is subject to general and rebalancing rate increases; and
- c. The Block 2 rate is increased by an amount sufficient to recover the remaining required revenue (i.e., the residual rate).

In its determination, the Panel considers several factors, including bill impacts, conservation, Bonbright Principles, and FortisBC's proposed pricing principles for the years 2012 to 2015 that will guide FortisBC in applying rate increases going forward. We discuss how these considerations affect the Customer Charge, the threshold, and the Block 1 and Block 2 rates. The Panel also considers the relationship between the Block 2 rate and FortisBC's long-run marginal cost of energy.

FortisBC is directed to implement the residential RIB rate as soon as is reasonably practicable, and by no later than July 31, 2012. It is also directed to establish a control group and such monitoring as is required to enable it to provide a RIB Rate Evaluation Report (Report) on conservation impacts of the RIB rate. FortisBC is also directed to include in the Report an update of the Conservation Potential Review; an in-depth analysis of its long-run marginal cost including the cost to distribute and transport the energy; the potential effect of a two-tier wholesale rate; and an analysis of the interaction of RIB and Time-of-Use (TOU) rates, should TOU rates be implemented during the reporting period. The reporting period is to run from the implementation date to December 31, 2013 and the Report is to be submitted to the Commission by no later than April 30, 2014.

2.0 INTRODUCTION

This Decision relates to an application filed by FortisBC to introduce Residential Inclining Block rates in its service territory (the Application). The Application is in response to an earlier Commission directive in Order G-156-10 following FortisBC's 2009 Rate Design and Cost of Service Analysis proceeding. A RIB rate is intended to promote conservation by employing a tiered rate structure in which consumption that occurs above a certain threshold level is billed at a higher rate. The higher second tier, or "block" rate, is designed to incent customers to reduce their consumption.

There were 15 Registered Interveners in the proceeding including a number of individual residential customers, associations, and corporations.

The introduction of RIB rates in the FortisBC service area is befitting an era where the provincial legislation encourages conservation and British Columbia Hydro and Power Authority (BC Hydro) has had a residential inclining block rate structure in place since October 2008.

2.1 Application

On March 31, 2011, FortisBC filed an Application for Residential Inclining Block rates pursuant to Directive 10¹ of Commission Order G-156-10 which was issued following FortisBC's 2009 RDA proceeding. Directive 10 directs FortisBC "... to develop a plan for introducing residential inclining block rates that also incorporate a lower Basic Charge in the immediate future and to file an RIB rate application with the Commission no later than March 31, 2011."

¹ Directive 10 in fact refers to the number in the Summary of Directives in the FortisBC 2009 RDA Decision. That Directive is Directive 5 in Order G-156-10. FortisBC refers to Directive 5 in Footnote 7 on p. 14 of the Application and again at p. 1 of its Final Submissions.

Accordingly, FortisBC applies under sections 58 – 61 of the *Utilities Commission Act (UCA)* for Commission approval of a new, two-tier, inclining block rate for its residential customers who are currently served under Rate Schedule RS 01. The RIB rate is intended to be the default, mandatory rate for all residential customers who are not taking service under FortisBC's TOU option, Rate Schedule 2A. This structure, if approved, will result in new rates upon implementation. The Application also seeks approval of a Pricing Principle on a go-forward basis, which will determine how each of the three rate elements (i.e., the Customer Charge, the Block 1 rate and the Block 2 rate) will be increased to meet the general revenue requirement adjustments required each year. (Exhibit B-1, p. 1)

2.2 Legislative and Regulatory Context

2.2.1 Legislative Framework

Utilities Commission Act

Section 59 of the *UCA*, in part, requires the Commission to set rates for a public utility that enable the utility to earn a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property. Further, a public utility must not make, demand or receive a rate that is unjust, unreasonable, unduly discriminatory or unduly preferential or contravenes the *UCA*, the regulations, orders of the Commission or any other law. Section 60, in part, provides that in setting a rate, the Commission may use any mechanism, formula or other method of setting the rate that it considers advisable and may order that the rate derived from such mechanism or formula or other method is to remain in effect for a specified period.

Clean Energy Act

The *Clean Energy Act (CEA)* received Royal Assent on June 3, 2010. The *CEA* advances 16 specific energy objectives to help achieve British Columbia's energy vision including new measures to

promote electricity efficiency and conservation. One of these efficiency and conservation objectives is to take demand-side measures and to conserve energy.

The *CEA* defines “**demand-side measure**” to mean a rate, measure, action or program undertaken

- (a) to conserve energy or promote energy efficiency,
- (b) to reduce the energy demand a public utility must serve, or
- (c) to shift the use of energy to periods of lower demand.

(*CEA*, Section 2)

The BC Energy Plan (2007): A Vision for Clean Energy Leadership

Prior to the introduction of the *CEA*, the provincial government’s emphasis on the promotion of energy efficiency was articulated in both the 2002 and 2007 Energy Plans. The 2007 Energy Plan includes, among other things, the following two Policy Actions relating to energy conservation and efficiency:

Policy Action #2: Ensure a coordinated approach to conservation and efficiency is actively pursued in British Columbia.

Policy Action #4: Explore with B.C. utilities new rate structures that encourage energy efficiency and conservation.

The 2007 Energy Plan also lists the following future energy efficiency and conservation initiatives in more detail:

- Continuing to remove barriers that prevent customers from reducing their consumption;
- Building upon efforts to educate customers about the choices they can make today with respect to the amount of electricity they consume;

- Exploring new rate structures to identify opportunities to use rates as a mechanism to motivate customers either to use less electricity or use less at specific times (emphasis added);
- Employing new rate structures to help customers implement new energy efficient products and technologies and provide them with useful information about their electricity consumption to allow them to make informed choices (emphasis added); and
- Advancing ongoing efforts to develop energy-efficient products and practices through regulations, codes and standards.

(The BC Energy Plan (2007), p. 5)

FortisBC states it believes that its RIB rate proposal is “one component within a comprehensive demand reduction strategy that helps the Commission and the Province fulfill conservation goals.” (Exhibit B-1, p. 8)

2.2.2 The 2009 RDA Decision

In the 2009 RDA Decision, the Commission rejected FortisBC’s position that no conservation rates should be introduced before FortisBC implemented its Advanced Metering Infrastructure (AMI) and by Directive 10 directed FortisBC to introduce RIB rates. The Commission articulated its reasons as follows:

- The timeline for the AMI implementation is subject to a number of factors with a potential outcome that introduction of wide spread time-of-use (TOU) rates could be five years away, which is contrary to the intent of the government policy;
- Hourly customer consumption data (available only after the introduction of the AMI) is not necessary to the design of a RIB rate structure. BC Hydro introduced RIB rates in October 2008 – long before its planned Smart Meter installation;
- The Commission Panel disagrees with the FortisBC position that a customer choosing to use less electricity during the peak periods will not use more electricity during the off-peak period to compensate; and
- The Panel is not persuaded by the FortisBC argument that customers would be confused over introduction of two kinds of conservation rates over a short period of time.

By way of summary, the Commission was “especially concerned that backing away from the RIB rate structure in the FortisBC service area today, in anticipation of TOU rates being implemented in five years time, would represent a foregone opportunity for energy efficiency and conservation.” (2009 RDA Decision, pp. 56-57)

2.3 Orders Sought

Pursuant to sections 58-61 of the *UCA*, FortisBC is seeking Commission approval to implement a RIB rate structure that reflects two steps, or blocks, and incorporates the following design features:

- A threshold level of bi-monthly consumption, above which the Block 2 rate will apply, set at 1,600 kWh;
- A Customer Charge of \$28.93 per two-month billing period, exempt from revenue requirement rate increases, with only rebalancing adjustments applied in future years (Customer Charge and Basic Charge are used interchangeably in this Decision);
- A Block 1 rate and a Block 2 rate determined using the customer impact criterion that 95 percent of customers are subject to annual billing increases no greater than 10 percent as a result of the RIB rate structure;
- The Block 1 rate adjusted by an amount equal to the sum of the general revenue requirement increase and rebalancing adjustments; and
- The Block 2 rate adjusted by an amount sufficient to recover the balance of the general revenue requirement and any rebalancing adjustments after the Customer Charge and Block 1 rate are calculated (the residual rate).

(Exhibit B-1, Appendix B)

FortisBC proposes to implement the RIB rate between six and nine months after receiving the Commission’s Decision on the Application. It states that introducing a RIB rate is a significant change that must be preceded and accompanied by thorough information and a customer education component, the development of which cannot commence until direction is provided.

(Exhibit B-1, p. 2)

A January 1, 2012 implementation date, using the methodology described in the Application to determine the rate, would produce a RIB rate with the following components:

- A Customer Charge of \$29.65 per billing period;
- A Block 1 rate of 8.453 cents per kWh; and
- A Block 2 rate of 12.408 cents per kWh.

These rates are further addressed in Section 4.5. It should be noted, however, that due to some concerns regarding the evidence submitted and related procedural delays, as addressed in Section 2.4, the most likely implementation will now take place in the second half of 2012. This could result in additional adjustments to the rates shown above.

2.4 Regulatory Process

FortisBC proposed a written hearing process, which included only one round of Information Requests (IR), and concluded on June 15, 2011 with the filing of its Reply Submission. Based on this regulatory timetable FortisBC anticipated the RIB rate structure would become effective January 1, 2012. (Exhibit B-1, p. 3)

However, a number of events occurred that resulted in a longer written hearing process. Some of these occurrences were the following:

- Additional rounds of IRs;
- Discussions between Commission staff and FortisBC regarding technical issues that arose while reviewing the responses to IR1;
- Establishment of a Procedural Conference for August 3, 2011 where the Commission Panel sought submissions on seven issues, including sufficiency of the evidentiary record, pricing principles, and conservation impact; (Exhibit A-15) and

- Based on the submissions received on August 3, 2011, the Panel determined that in many instances the record was inadequate to support FortisBC's submissions. Accordingly, the Commission Panel directed FortisBC to file additional evidence addressing, among other issues, revenue stability, calculation of 2012 RIB rates, long-run marginal costs, elasticity and conservation measures, and Basic Charge. (Exhibit A-17)

A more detailed description of the regulatory process is provided in Appendix A.

3.0 OVERVIEW OF FORTISBC PROPOSAL

3.1 Framework for Proposed RIB Rate Structure

FortisBC states the Bonbright Principles continue to provide a framework against which all rate design activities and options can be compared. These principles, as paraphrased by FortisBC, are shown below:

- Principle 1 Recovery of the revenue requirement;
- Principle 2 Fair apportionment of costs among customers (appropriated cost recovery should be reflected in rates);
- Principle 3 Price signals that encourage efficient use and discourage inefficient use (consideration of social issues including environmental and energy policy);
- Principle 4 Customer understanding and acceptance;
- Principle 5 Practical and cost-effective to implement (sustainable and meet long-term objectives);
- Principle 6 Rate stability (customer rate impact should be managed);
- Principle 7 Revenue stability; and
- Principle 8 Avoidance of undue discrimination (interclass equity must be enhanced and maintained).

(James C. Bonbright, Principles of Public Utility Rates, Columbia University Press, 1961)

As a conservation rate, a RIB rate's main purpose is to induce conservation. It is generally acknowledged that the RIB rate design is conducive to savings in energy and its impact on savings in demand is only coincidental to customers' response to the RIB rate design (Exhibit B-5, BCUC 1.9.3; BCUC 1.17.6). The other conservation rate currently in use at FortisBC is its Time-of-Use rate. The purpose of the time-based rate is to conserve capacity (Exhibit B-12, BCUC 2.4.1). FortisBC submits that customers who choose to take service under the TOU billing would not be compelled to move to the RIB rate (FortisBC Final Submissions, p. 1).

Under the Bonbright Principles against which all RIB rate options are evaluated, the RIB rate option that is most preferred would be one that induces the most conservation and also balances the competing Bonbright objectives.

In this Application, FortisBC analyzes 18 rate scenarios and further evaluates the scenarios for a preferred option by making choices that include meeting the following relevant objectives:

- Customer bill impact (Bonbright Principles 4 and 6, customer understanding and acceptance, and rate stability);
- Efficient Price Signal (Bonbright Principle 3, price signals that encourage efficiency use and discourage inefficient use); and
- Promotion of Conservation (Policy Action #44 from the 2007 Energy Plan).

3.2 RIB Rate Scenarios Proposed

FortisBC states that in an effort to design a rate that (i) FortisBC customers will understand, (ii) maintains provincial consistency, (iii) meets the defined objectives, and (iv) complies with the Commission directive, it has restricted the options to RIB rate structures that vary the following four components:

1. Customer Charge: The customer charge is the fixed portion of the bill that does not vary with usage. Typically, the customer charge is used to recover the costs incurred by the utility of providing services such as billing and meter reading to customers. The Commission has specifically directed FortisBC to submit an inclining block rate option that includes a lower customer charge. (Order G-156-10, Directive 5);
2. Threshold: A threshold in an inclining block rate is the kWh consumption level at which the price for each subsequently consumed kWh will increase;
3. Block 1 rate: The rate, expressed in cents per kWh, at which each kWh of consumption up to the threshold is billed; and

4. Block 2 rate: The rate, expressed in cents per kWh, at which each kWh of consumption above the threshold is billed.

The Application includes 18 RIB rate scenarios (Options 1-18) for comparison.

FortisBC states that the Customer Charge under the Rate Schedule (RS) 01 was forecast to be \$28.93 per two-month billing period effective May 1, 2011. This number became the starting point for the RIB rate design work. FortisBC points out that at its current level the Customer Charge collects “just under 44 per cent of the amount required by strict adherence to cost causation principles.” FortisBC further states that, as the Commission has determined the proposed RIB rate will include a reduction in the Customer Charge, the level at which it will be ultimately set becomes somewhat arbitrary. To gauge the impact of a lower Customer Charge on the other rate components, FortisBC selected a bi-monthly Customer Charge of \$21.50 to model for analysis.

For the threshold level, FortisBC has modeled the following three bi-monthly thresholds based on customer billing data from 2009 and 2010:

- Mean Consumption: 2,100 kWh
- Median Consumption: 1,600 kWh
- 85 percent of Median: 1,350 kWh

For each combination of the two customer charges (\$28.93 and \$21.50) and the above three threshold levels, FortisBC then specified three permissible customer impact levels:

1. 90% of customers will see a RIB related increase of less than or equal to 10%;
2. 95% of customers will see a RIB related increase of less than or equal to 10%; and
3. 100% of customers will see a RIB related increase of less than or equal to 10%.

(Exhibit B-1, p. 17)

The customer impact criterion is expressed in terms of the percentage of residential customers who will experience an annual rate impact due solely to the implementation of the RIB option of less than 10 percent. FortisBC notes that the 10 percent figure is generally seen as the threshold of “rate shock”, though it is not an official position of the Commission.

These permutations become the 18 RIB rate scenarios included in the Application for further analysis. (Exhibit B-1, pp. 14-17)

3.3 Evaluation Criteria

For each of the 18 RIB rate scenarios, FortisBC determined the following RIB rate evaluation criteria.

Table 1: RIB Rate Evaluation Criteria

Evaluation factor	Description
Annual Breakeven kWh	The level of annual consumption required to have annual billing under the RIB rate option equal annual billing under the current flat rate option.
Percentage of Customers That Benefit	The percentage of customers whose annual bill for electricity is lower under the RIB Rate option than under the existing flat rate.
Maximum Bill Impact	The highest single percentage increase experienced by a customer in any month when the RIB rate option is compared to the flat rate.
Percentage of Customers with Bill Increases > 20%	The percentage of customers who will experience an annual increase in their bills greater than 20% when billing under the RIB rate option is compared to billing under the existing flat rate.
Number of Customers With Consumption in Block 2 At Least Once	The number of customers who will have consumption in a billing period in the second block at least once in a year.
Percentage of Load Billed in Block 2	Of the total residential load (in kWh), the percentage that is consumed in the second block.
Conservation Impact	The conservation impact of a RIB rate option is the estimated reduction in both consumption and demand that is attributable to the implementation of the given RIB rate option.

Source: Exhibit B-1, p. 20, Table 7-1

To reduce the 18 rate scenarios to a smaller set of scenarios for further analysis, FortisBC relied on the following three RIB rate objectives:

Customer Bill Impacts: Customer bill impacts, while unavoidable, should not be unreasonable. FortisBC states that the evaluation of customer bill impacts should be informed by concurrently examining the criteria “Maximum Bill Impact” and “Percentage of Customers with Bill Increases > 20%” (Exhibit B-5, BCUC 1.8.1);

Efficient Price Signals: The differential between Block 1 and Block 2 rates must be sufficient to provide a meaningful signal to incent conservation behaviour (the first screening criterion); and

Promotion of Conservation: The total residential load that would be billed in the second block, as a percentage of the entire load, became the second screening criterion.

FortisBC states that by applying the above two screening criteria, it reduced the 18 RIB rate scenarios down to four scenarios (Options 2, 8, 11 and 17) which would be analysed by applying different Pricing Principles over the 2012-2015 time period.

3.4 Pricing Principles for 2012 to 2015

FortisBC states that it must design a RIB rate that will recover its annual revenue requirements for the residential customer class, which becomes a constraint by making it impossible to vary each RIB rate component independently. At a minimum, one of the four variables will be dependent on the levels chosen for the other three. FortisBC designed its 18 RIB rate scenarios to cover its 2011 revenue requirements to begin with. Subsequently, FortisBC had to develop pricing principles regarding how to apply future general revenue requirement related rate increases to each of the three rate components in future years.

FortisBC further states it has based the analysis on the residential rates expected to be in effect as of May 1, 2011. This includes the impact of the 2.5 percent rebalancing increase as approved by Commission Order G-196-10, but does not include any forecast interim flow-through rate adjustments related to the BC Hydro 2012-2014 Revenue Requirements Application. (Exhibit B-1,

p. 15)

The Company takes the position that it is complying with Commission Order G-156-10 to introduce a lower Customer Charge by exempting the existing Customer Charge from future general rate adjustments other than those related to rebalancing through 2015. FortisBC's rationale is that this Pricing Principle effectively reduces the Customer Charge relative to other billing determinants over time. (Exhibit B-1, p. 16)

To further test the remaining four scenarios, FortisBC designed four Pricing Principles to apply the following anticipated residential rate increases to the three rate components.

Table 2: Forecast Residential Rate Increase

Rate Component	2012	2013	2014	2015
	(%)			
Revenue Requirement Increase	6.4	4.2	3.4	6.5
Rebalancing	2.5	2.3	-	-
Total Increase	8.9	6.5	3.4	6.5

Source: Exhibit B-1, p. 25, Table 8-2

Two of the four scenarios (Options 2 and 8) are designed on the above stated premise that the Customer Charge is exempt from rate increase, except for rate balancing adjustments. In these cases, FortisBC explored the following alternatives:

Pricing Principle 1

- The general and rebalancing rate increases are applied to the Block 1 rate; and
- The Block 2 rate is increased by an amount sufficient to recover the remaining required revenue; i.e. the residual rate.

Pricing Principle 2

- The Block 1 rate is frozen; and

- The Block 2 rate is increased by an amount sufficient to recover the required revenue; i.e., the residual rate.

For the remaining two scenarios (Options 11 and 17) the following alternatives were explored:

Pricing Principle 3

- General and rebalancing rate increases applied equally across the Customer Charge and Block 1 rate components; and
- The Block 2 rate is increased by an amount sufficient to recover the remaining required revenue; i.e. the residual rate.

Pricing Principle 4

- Block 1 rate is frozen;
- General and rebalancing increases applied to the Customer Charge; and
- Block 2 rate increase by an amount sufficient to recover the remaining required revenue; i.e. the residual rate.

(Exhibit B-1, p. 25)

3.5 Option 8: FortisBC's Preferred Option

Upon further review, FortisBC eliminated half of the above permutations from consideration due to the high and increasing ratio between the Block 1 and Block 2 rates. FortisBC submits that a second block rate that is too high will be unduly punitive to higher consumption customers, such as those with electric heat. Any scenario in which the annual rate increases are only applied to the Block 2 rate results in such a high ratio.

FortisBC further states that the ratio between Block 1 and Block 2, which is an indication of the conservation incentive provided by the rate, should also remain fairly constant and not decrease over time to the point where this incentive is no longer effective.

As the final outcome of its selection process, FortisBC recommends Option 8 as its preferred option and proposes the following Pricing Principle (Pricing Principle 1):

- A Customer Charge frozen at the existing level, with only rebalancing adjustments applied in future years;
- A Block 1 rate adjusted by an amount equal to the sum of the general revenue requirement increase and rebalancing adjustments; and
- A Block 2 rate adjusted by an amount to recover the balance of the general revenue requirement and any rebalancing adjustments.

The resultant RIB rate structure, based on May 1, 2011 rate levels, is comprised of:

- A bi-monthly Customer Charge of \$28.93;
- A Block 1 rate of 7.828 cents per kWh;
- A Block 2 rate of 11.272 cents per kWh, reflecting a 44 percent differential between the two blocks; and
- A bi-monthly threshold of 1,600 kWh.

(Exhibit B-1, p. 27)

3.6 RIB rates and TOU rates

FortisBC refers to its public consultation with respect to customers' preferences for various residential rate options, which was conducted in late 2009. As part of that consultation, FortisBC included a number of RIB rate options in addition to the existing flat rate option.

By way of summary, FortisBC states that the consensus reached during the public consultation, as well as its preference, was for maintaining the status quo pending the AMI implementation. The RIB rate option was seen by customers as a viable option, although it had lower support than

waiting for AMI. Based on the above, FortisBC believes that customer acceptance will be largely based on credible evidence on conservation impacts and careful management of bill impacts. (Exhibit B-1, pp. 12-13)

Based on the Commission directives in Order G-156-10 and BC Hydro's submission in a recent application (RIB Re-Pricing Application) that after its implementation of Smart Meters and Infrastructure Program, BC Hydro would not propose a mandatory TOU rate, FortisBC's current position is to offer a suite of time-based rates to complement its mandatory RIB rate. (Exhibit B-5, BCUC 1.6.4; BCUC 1.4.3.3)

This topic will be addressed in further detail in Section 4.9.

4.0 KEY ISSUES AND COMMISSION DETERMINATIONS

4.1 Residential Inclining Block Rate and its Structure

4.1.1 FortisBC Submission

The RIB rate option proposed by FortisBC has the same four basic components as that implemented by BC Hydro: a Customer Charge, a single threshold, and two block rates. In its Final Submission, FortisBC submits that: “A RIB rate composed of those four components offers provincial consistency, and alternative structures were therefore not included as an option in the original Application.”

In addition, FortisBC also provides a non-exhaustive list of examples of other potential RIB rate structures, including:

- RIB rates featuring multiple thresholds and rate blocks;
- RIB rates that include a time component such as hourly or seasonal blocks;
- RIB rates that contain a demographic parameter such as income or heating fuel choice;
- RIB rates that feature a geographic parameter; and
- RIB rates that feature an individual customer consumption baseline.

However, it “believes that consistency with the four component rate structure adopted by BC Hydro is a desirable component of its RIB rate and that the Commission should not consider any rate variant that does not comply.” (FortisBC Final Submission, p. 2)

4.1.2 Intervener Submissions

Strata KAS2464 believes the RIB rate proposal mutes market forces and blunts the imagination and innovation of the future. It submits that overall the negative possibilities outweigh the positive benefits. However, it acknowledges that if the Commission continues to believe that conservation can be efficiently promoted via a residential inclining block rate, the FortisBC proposal with its various shortcomings is the preferred option. (Strata KAS2464 Final Submission, p. 3)

The BCOAPO expresses concern about the specific rate proposed and submits that introducing a rate where both blocks will vary from the Long-Run Marginal Cost (LRMC) more than the current flat rate within the short term is counterproductive because it does not promote the efficient use of electricity while causing material customer impacts. Further, it "...sees no value in a rate design for a rate design's sake and submits that the objective is not and should not be simply to reduce use for its own sake, but to do so when and if it makes sense." In summary, the BCOAPO maintains that "...it may be a difficult pill for parties to swallow... to find that the correct action is no action at all, but that is, in BCOAPO's submission, the case here." (BCOAPO Final Submission, p. 6)

BCSEA agrees with FortisBC's proposed RIB rate structure, containing a Customer Charge, a threshold and two block rates. (BCSEA Final Submission, p. 1) No other Interveners commented on this issue.

4.1.3 FortisBC Reply

In Reply, FortisBC notes that "...the BCOAPO does not offer any opinion on what different conclusion or recommendation in terms of an appropriate rate would result from an alternate approach." (FortisBC Reply Submission, p. 11)

4.1.4 Commission Determination

As previously described in this Decision, this Application was brought forward by FortisBC in response to a directive by the Commission. This directive is supportive of the objectives of the *CEA* for British Columbia to take demand side measures, to conserve energy, and to achieve electricity self sufficiency. These objectives can benefit from the use of conservation rates, such as the RIB, for electricity. The issue before the Panel is how best to structure a conservation rate to decrease demand and induce conservation in an efficient manner – a manner that optimizes the utilization of resources.

In a competitive market, rising prices affect consumers' behaviour by sending a price signal to induce consumers to reduce consumption. Thus, rising prices discourage the uneconomic use of scarce resources. In a perfectly competitive market, the price of any increment of a resource will be driven to the full economic cost of that increment, and will therefore be an "economic efficient" price which achieves optimal resource utilization.

In the absence of market pricing, as is the case in the regulated sector, the challenge for utilities and regulators is to establish an economic efficient price, or rate, that encourages energy conservation while ensuring that the utility's revenue requirement is met. While an arbitrary increase in a rate may well encourage less consumption, it may not be an economically efficient reduction in consumption. In any event, given revenue requirement constraints, a flat rate cannot simply be increased. An inclining block structure, which charges a lower rate for amounts consumed below a threshold and a higher rate above that threshold, can potentially be structured to be both economically efficient and meet the utility's revenue requirements. However, a RIB rate structure that is incorrectly priced can have disadvantages and unintended consequences, the principal among them being that customers overuse underpriced resources and underuse overpriced resources. The choices made are suboptimal and the consequence is lower productivity and/or lower conservation. A rate structure based on sound rate-making principles can ensure that what consumers pay will reflect the true economic value of the energy they buy, and that energy resources find their best possible uses.

Bonbright Principle 3 embodies this notion and accordingly, the Panel gives this principle added weight in its consideration. The Panel is of the opinion that the RIB rate structure proposed by FortisBC - a relatively simple inclining pricing structure - incents conservation. However, other Bonbright Principles which provide, for example, for fairness, and stability must also be considered. In this regard, the Panel notes that FortisBC has considered such issues as bill impacts, ease of understanding and rate stability in the design of its proposed RIB rate Option 8. These considerations will be discussed further in subsequent sections of this Decision.

An important characteristic of a RIB rate structure is that it allows the utility to introduce price signals that reflect the increased marginal cost of electricity. Setting the Block 2 rate equal to the LRMC and allowing the Block 1 rate to be set residually ensures that any consumption, in excess of the threshold, is billed at the LRMC. The Panel considers this to be a key element of a RIB rate that can be used to induce conservation and be economically efficient. The Panel notes that while the BCOAPO does not appear to object to the notion of a RIB rate, it does not agree with the RIB rates as proposed because the Block 2 rate is not significantly below the LRMC and could potentially exceed it in the near future. The Panel does not agree with this assessment for the reasons given in Section 4.6.3, where we discuss the relationship between FortisBC's LRMC and the approved RIB rate option in more detail.

The Panel also does not agree with the negative possibilities of the RIB rate proposal as articulated by Strata KAS2464. There has been no evidence provided that would support its position that RIB rates mute market forces and stifle innovation.

The Panel is satisfied that the introduction of a RIB rate, in addition to being an effective tool in promoting conservation; is simple for the utility and users to understand; does not unduly discriminate against certain segments of residential ratepayers, as we will discuss in Section 4.2.3; and promotes revenue stability as we will discuss in Section 4.2.3. **Accordingly, the Panel finds that a RIB rate structure is in the public interest and directs FortisBC to implement this rate structure, subject to the parameters described below.**

With regard to the four-component RIB structure proposed by FortisBC, the Panel is supportive of its goal to maintain provincial consistency. The single threshold with two blocks is simpler to implement and understand - for both the utility and its customers – when compared to structures with multiple thresholds. Of the other potential RIB rate structures cited, each introduces a challenge or complexity not present in the proposed structure. For example, there may be privacy issues associated with approaches that require the utility to obtain demographic information from its customers; individual customer baselines may be perceived as unfair and also present difficulties from an implementation and operations perspectives; multiple thresholds may be confusing for some or many customers. These issues have been explored in considerable detail in previous BC Hydro RIB rate hearings and the Panel is satisfied with the Applicant’s choice in this regard. **The Commission Panel directs that the FortisBC’s RIB rate consist of four components: a Customer Charge, a threshold, and two block rates.**

Although no submissions were received on the specific implementation date, the Panel notes that in the Application and the proposed regulatory schedule included therein, FortisBC estimated an implementation date of April 1, 2012. Given schedule delays, we acknowledge that this date may no longer be feasible. However, we do encourage FortisBC not to delay the implementation process any further. **Accordingly, FortisBC is to implement the RIB rate as soon as is reasonably practicable and by no later than July 31, 2012. FortisBC is to file a revised Tariff Sheet for Rate Schedule 01 no later than 30 days prior to the date the RIB rate becomes effective.**

4.2 Customer Charge

Directive 5 of Order G-156-10 ordered FortisBC “... to develop a plan for introducing residential inclining block rates that also incorporate a lower Basic Charge in the immediate future...”. As described earlier, FortisBC’s proposed Option 8 would exempt the Customer Charge from rate adjustments other than those related to rebalancing through 2015. FortisBC submits that this rate design effectively reduces the Customer Charge over time relative to other billing determinants. (Exhibit B-1, p. 1) FortisBC further notes that, upon implementing the RIB rate in 2012, the

Customer Charge will also decrease in absolute terms as compared to the Customer Charge that would be in effect in 2012 if the RIB rate were not put in place. Indeed, in 2012, the Customer Charge would increase to \$29.65 per billing period with a RIB rate or, by contrast, it would increase to \$31.25 if the flat rate structure was maintained, assuming that the 2012 rate increase requested by FortisBC in its 2012-2013 Revenue Requirements Application is approved. (FortisBC Final Submission, p. 4)

Other levels of Customer Charge have been explored as part of this proceeding. They are \$0.00, \$7.50, \$10.00, \$15.00 and \$21.50.

In FortisBC's RIB rate proposal, the Customer Charge is also a determinant of the Block 1 and Block 2 rates. This is because the rates are determined by first selecting a Customer Charge, a threshold, and an allowable customer bill impact, and then finding the unique combination of Block 1 and Block 2 rates that collects the required revenue.

4.2.1 FortisBC Submission

FortisBC submits that the Customer Charge should not be lowered other than as achieved by applying FortisBC's proposed Pricing Principle as described above for three reasons:

- The current level of the Customer Charge is already below the COSA-derived amount;
- Fixed costs, to the extent possible, should be recovered through fixed charges; and
- Revenue stability for the utility should be considered.

(FortisBC Final Submission, p. 4)

Further to the last point above, FortisBC maintains that "the collection of fixed costs through fixed charges, as well as the established need for revenue stability needs to be considered. Decreasing the customer charge and increasing the energy charges adds sales revenue volatility. FortisBC believes that its proposal provides an appropriate balance between the needs of the Company and

the concerns customers may have with the level of the customer charge.” (BCUC 1.1.12.4)

Beyond these reasons, FortisBC demonstrates that lowering the Customer Charge below \$28.93 would result in smaller block differentials and lower conservation impacts, all else being equal. (FortisBC Final Submission, pp. 4-5)

4.2.2 Intervener Submissions

BCSEA agrees with FortisBC that the evidence supports the above conclusion and adds that, for any given bill impact constraint, increasing the Block 1/Block 2 rate differential has a larger impact on conservation than does increasing the energy charges by decreasing the Customer Charge. BCSEA places a priority on maximizing conservation within various constraints and, accordingly, supports approval of FortisBC’s proposal regarding the Customer Charge. (BCSEA Final Submission, p. 4)

BCOAPO acknowledges that FortisBC’s most recent Cost of Service Analysis (COSA) based on its 2009 RDA indicated that the true cost of service per account was almost twice the current Customer Charge. Therefore, BCOAPO submits that there is no reason to either change FortisBC’s Customer Charge if the Commission approves a RIB rate or reduce the Customer Charge in any future rate designs. (BCOAPO Final Submission, p. 6)

Mr. Shadrack states that his household “... would be quite happy if that basic charge was reduced over a similar five-year period to avoid rate shock” and “believes that the goal should be to reduce the Customer Charge to \$9.78.” The methodology suggested by Mr. Shadrack differs from the approach taken by FortisBC in its Application and would see absolute decreases applied to the Customer Charge in each of the five years. However, Mr. Shadrack also comments that if the Commission does not lower the Customer Charge, then it must direct FortisBC to address how it would ensure that those who reduce their electrical consumption, under an inclining block rate, are not going to end up being financially penalized. He also submits that when setting the Customer Charge, the difference between FortisBC’s Customer Charge and that of BC Hydro should be considered. He maintains that “....this anomaly must be addressed in a timely manner.” (Shadrack

Final Submission, p. 2)

Despite not commenting specifically on the Customer Charge or any other elements of the proposed RIB rate, Strata KAS2464 submits that the FortisBC proposal, with its various shortcomings, is the preferred option should the Commission continue to believe that conservation can be efficiently promoted via a RIB rate. (Strata KAS2464 Final Submission, p. 3)

Finally, Nelson Hydro, which describes itself as an interested but not directly affected party, believes that holding the Customer Charge fixed and applying increases only to the energy charges appears to be a good way to make the transition from cost-based to conservation-based rates. (Nelson Hydro Final Submission, p. 2)

4.2.3 Commission Determination

The Panel does not agree with the submission of Mr. Shadrack that the difference between BC Hydro's and FortisBC's Customer Charges must be addressed, or, indeed, that it even constitutes an anomaly. The cost structures of the two utilities are different, which alone could lead to a difference in the Customer Charge. In any event, how BC Hydro determines its Customer Charge is not within the scope of this hearing. Further there has been no evidence provided in this hearing to show that FortisBC's Customer Charge is anomalous. The Panel notes that in this Application, FortisBC demonstrated that its bi-monthly Customer Charge was well within the range of the residential customer charges of other major utilities in Canada (ATCO Limited Electric, ENMAX Power Company, EPCOR Utilities Inc., Toronto Hydro, Hydro Ottawa, NS Power, NF Power, NB Power (Urban)). (Exhibit B-11, p. 28) For those utilities, FortisBC shows that the adjusted 2-month Customer Charge averages \$31.28. The Panel also notes that in the FortisBC 2009 RDA, FortisBC submitted a comparison of the Customer Charges for Saskpower, NB Power, NF Power, Manitoba Hydro, Hydro Quebec, NS Power and BC Hydro. This comparison shows FortisBC's proposed Customer Charge lying below the average monthly Customer Charge of \$15.34 for those utilities.

The Panel acknowledges the need for revenue stability and notes FortisBC's comments that decreasing the Customer Charge could increase revenue volatility, a claim which no Intervener has refuted.

For these reasons, the Commission Panel is persuaded by FortisBC's submission regarding the Customer Charge and **approves its proposal to set the Customer Charge at \$28.93 based on May 1, 2011 rates and exempt it from general rate increases, other than rate rebalancing increases for the years 2012 to 2015.**

4.3 Threshold

A threshold in an inclining block rate is the kWh consumption level above which the price for each subsequently consumed kWh is billed at the Block 2 rate. As noted earlier, the threshold is also one of the key determinants of the Block 1 and Block 2 rates in FortisBC's proposed RIB rate design. Based on 2009 and 2010 customer billing data, FortisBC has modeled three threshold levels, corresponding roughly to the residential mean consumption (2,100 kWh), the residential median consumption (1,600 kWh) and a kWh value set at approximately 85 percent of the median consumption (1,350 kWh). (Exhibit B-1, p. 17)

A threshold set at 1,500 kWh has also been examined through the written hearing process.

4.3.1 FortisBC Submission

FortisBC has selected a threshold of 1,600 kWh per billing period for Option 8, its preferred RIB rate option, which corresponds to the median consumption for residential customers. This threshold would result in approximately 37 percent of the load being billed at the Block 2 rate. (Exhibit B-1, p. 18)

FortisBC acknowledges that the Commission, in Order G-124-08, approved BC Hydro's RIB rate threshold at 1,350 kWh, a reduction from BC Hydro's proposed 1,600 kWh threshold, in order to expose more customers to the Block 2 rate and in consideration of a letter from the Minister of Energy, Mines and Petroleum Resources citing the threshold at 10 percent below the average usage. However, FortisBC notes that in its case, all other RIB rate determinants remaining unchanged, a similar determination would effectively prompt the approval of Option 2 rather than Option 8. (FortisBC Final Submission, p. 3) This would result in lower Block 1 and Block 2 rates with no anticipated increase in conservation. (Exhibit B-11, Appendix B) Furthermore, FortisBC notes that in the BC Hydro case, a threshold of 1,600 kWh results in approximately 62 percent of customers being billed at the Block 2 rate at least once while a threshold of 1,200 kWh would see that number rise to 74 percent. By contrast, a FortisBC threshold set at 1,600 kWh would result in 72.8 percent of customers being billed at the Block 2 rate at least once. Therefore, FortisBC essentially shows that the difference in characteristics between the two utilities means that approximately the same proportion of customers would be billed at the Block 2 rate despite the different thresholds. (FortisBC Reply Submission, p. 6)

FortisBC also states that setting the threshold near the median level provides a rationale that is both easy to understand and communicate to customers and sees no compelling reason to vary the threshold from its proposed 1,600 kWh value. (FortisBC Final Submission, p. 3)

4.3.2 Intervener Submissions

No Intervener took issue in written submissions with the threshold proposed by FortisBC.

In BCSEA's view, three main alternatives have emerged for the RIB rate threshold that can each be relatively easily communicated:

- 1,600 kWh per billing period, preferred by FortisBC, is roughly the residential median consumption;

- 1,500 kWh per billing period is roughly 90 percent of the residential median consumption (Exhibit B-13, BCSEA 2.15.1) and is the basis of the BC Hydro's RIB threshold; and
- 1,350 kWh per billing period is BC Hydro's actual RIB threshold.

(BCSEA Final Submission, p. 4)

BCSEA acknowledges that while a lower threshold exposes more customers to the Block 2 rate, it yields a conservation estimate that is either the same as or, in some designs, slightly lower than with a higher threshold. Therefore, BCSEA tends to agree with FortisBC that there is no compelling reason to vary the threshold from the proposed 1,600 kWh value, although it would also find acceptable thresholds of either 1,500 kWh or 1,350 kWh per billing period. (BCSEA Final Submission, p. 5)

The BCOAPO makes no submission regarding the threshold level. As part of his proposed alternative RIB rate design, Mr. Shadrack supports setting the threshold initially at 1,600 kWh per billing period and lowering it by 15 percent to 1,350 kWh over five years. Strata KAS2464 does not mention the threshold specifically, but indicates its support for FortisBC's preferred option should the Commission approve a RIB rate. (Strata KAS2464 Final Submission, p. 3) Likewise, Nelson Hydro supports the RIB rate option proposed by FortisBC without commenting expressly on the threshold level. (Nelson Hydro Final Submission, p. 3)

4.3.3 Commission Determination

Once the Customer Charge has been established, the remaining elements of the RIB rate can now be set. The threshold value is the amount of monthly consumption above which a customer is billed at the higher rate. Because of the constraint that the amount of revenue recovered by the RIB rate cannot exceed the amount of the approved revenue requirement for the residential customer class, the Block 1 rate will necessarily be less than the current flat rate while the Block 2 rate will be above it. Thus, if customers were billed only at the Block 1 rate, whatever it may be, they will pay less for their electricity under the RIB rate than they do currently under the flat rate.

The Panel is of the opinion that it is desirable to ensure that as many customers as possible incur the Block 2 rate at some point during any given year.

A key determinant, then, in setting the threshold value is the percentage of customers that will be billed in the higher rate at least once in any given year. Generally speaking, the lower the threshold, the more customers are exposed to the higher Block 2 rate. The higher the threshold, the fewer customers will be exposed to the Block 2 rate.

As previously discussed, BC Hydro's initial RIB rate application proposed 1,600 kWh, which was subsequently reduced to 1,350 kWh, in large part because this threshold represents 10 percent below the average usage and would result in increased billing at the Block 2 rate. FortisBC's proposed threshold of 1,600 kWh, although substantially higher than the threshold adopted by BC Hydro, results in roughly the same proportion of customers being billed at the Block 2 rate. **The Panel approves the threshold of 1,600 kWh proposed by FortisBC.** While making this determination, the Panel also notes the observation of BCSEA that while a lower threshold generally exposes more customers to the Block 2 rate, in these particular circumstances, the conservation savings may not actually be higher with a lower threshold. In its Final Submission, it compares Option 2, with a threshold of 1,350 kWh with Option 8 (with a 1,600 kWh threshold). Both options have identical conservation savings.

4.4 Customer Impact Criterion

The customer impact criterion is the last of three key determinants used by FortisBC to determine the Block 1 and Block 2 rates, along with the Customer Charge and the threshold. The customer impact criterion is expressed in terms of the percentage of residential customers who will experience an annual rate impact due solely to the implementation of the RIB rate of less than 10 percent. FortisBC has modeled three levels of allowable customer bill impact, which can be summarized as 90 percent, 95 percent, or 100 percent of customers will see a RIB-related increase of less than or equal to 10 percent. (Exhibit B-1, p. 17)

4.4.1 FortisBC Submission

FortisBC proposes a RIB rate option that incorporates the 95 percent customer impact criterion. FortisBC is concerned about the potential impact of a RIB rate on its customers and therefore seeks a balance between its needs and those of its customers while also considering the goal of conservation. FortisBC acknowledges that allowing a greater percentage of its customers to experience more than 10 percent annual bill impact results in greater anticipated conservation. However, it does so by lowering the Block 1 rate further to create a larger block differential. This potentially results in greater gains to some customers with no accompanying behavioural changes while exposing a larger number of customers to high bill increases. FortisBC also believes that an unduly punitive rate that may disproportionately affect a sub-group of customers, such as those with electric heat, should be avoided. FortisBC submits that the relatively modest increases in conservation results do not justify the move from the 95 percent to the 90 percent customer impact criterion. (FortisBC Final Submission, pp. 6-7)

4.4.2 Intervener Submissions

No Intervener took issue with FortisBC's position with respect to the need to consider consumer impact. In particular, BCSEA noted that Customer Rate Impact (Bonbright Principle 6) and Efficiency Inducing Price Signals (Bonbright Principle 3) were given "additional weight" in the Commission's Decision in the recent BC Hydro RIB Rate Re-Pricing Decision (page 14-28 of Appendix A to Order G-45-11) and as such acknowledges that these two considerations properly form a primary part of the evaluation of FortisBC's proposed RIB.

However, BCSEA strongly supports approval of a RIB rate design based on the 90 percent customer impact criterion, as the RIB rate options based on this bill impact constraint consistently induces more conservation than those based on the 95 percent customer impact criterion, all else being equal. BCSEA submits that the most important choice in designing a RIB rate that induces the most conservation while meeting the other valid constraints and objectives is the adoption of the 90 percent bill impact constraint. BCSEA compares the conservation results anticipated under

FortisBC's preferred option (Option 8) with those under Option 7, which differ only with respect to the customer impact criterion. BCSEA disagrees with FortisBC's characterization that the conservation differential between those two options is "relatively modest" and shows graphically that Option 7 achieves substantially more conservation than Option 8. BCSEA further disagrees with the premises that customers with electric heat are a sub-group that would be disproportionately impacted by Option 7, as those customers are distributed across the spectrum of low to high consumption. In fact, BCSEA shows how Options 7 and Option 8 result in exactly the same impact in terms of the percentage of customers with electric heat who see a bill decrease (59 percent) or a bill increase (41 percent). To conclude, BCSEA submits that the Commission should prefer RIB rate designs based on the 90 percent customer impact criterion because those designs induce substantially more conservation without causing unacceptable bill impacts. (BCSEA Final Submission, pp. 1-3)

BCOAPO does not specifically comment on the appropriate level of customer bill impact in its written submission. Nonetheless, BCOAPO acknowledges that customer bill impact should form a primary part of the evaluation of FortisBC's proposed RIB. (BCOAPO Final Submission, p. 2)

Mr. Shadrack also does not comment specifically on the appropriate level of customer bill impact in his written submission.

Strata KAS2464 does not mention the customer impact criterion specifically, but indicates its support for FortisBC's preferred option should the Commission approve a RIB rate. (Strata KAS2464 Final Submission, p. 3) Likewise, Nelson Hydro supports the RIB rate option proposed by FortisBC without commenting expressly on the various individual rate components. (Nelson Hydro Final Submission, p. 3)

4.4.3 FortisBC Reply

In Reply, FortisBC notes that in his written submission, Mr. Shadrack did not explicitly express support for one of the customer impact criteria over another. The Company submits, however,

that given Mr. Shadrack's alternative RIB rate proposal, with both a Customer Charge and a Block 1 rate predetermined, the use of the customer impact criterion in the manner in which FortisBC proposes is precluded and ultimately, the customer bill impact is ignored in the determination of the rate.

FortisBC stresses that the customer impact criterion, as an integral input into the determination of the rate itself, is more than just a yardstick for gauging the changes to bills as a result of the RIB rate. Furthermore, the selection of one customer impact level over another while holding the Customer Charge and threshold constant constitutes a trade-off between conservation and customer impact. FortisBC asks: Is the greater conservation potential worth the associated increase in negative customer impact? Its view is that customer impact directly influences the general acceptance of the rate – a key consideration when implementing a new rate. In conclusion, FortisBC submits that while the BCSEA acknowledges that it "... puts a priority on maximizing the amount of conservation", FortisBC seeks a balance that considers as fundamentally important the impact on customers. (FortisBC Reply, pp. 2-3)

4.4.4 Commission Determination

The Panel agrees that customer impact is an important criterion and will thus consider customer impact in its further determination of the appropriate RIB rate components.

FortisBC is proposing a RIB rate option with a customer impact of 95 percent (Option 8). The Panel accepts BCSEA's submission that a level of customer impact greater than this can, all else being equal, encourage greater conservation, and its proposal to adopt a 90 percent customer impact level (Option 7). Although FortisBC characterizes the conservation differential between Option 7 and Option 8 as being "relatively modest," BCSEA submits that the conservation savings associated with Option 7 are approximately half as much compared to those of Option 8. (Final Submission, BCSEA, p. 2) However, the Panel notes that consideration must be given, when weighing conservation benefits against bill impacts, to the factual basis of these two elements. There is an acknowledged uncertainty surrounding elasticity estimates and the resulting conservation

forecasts. (FortisBC Final Submission, pp. 10-11) This is in contrast to the considerably better understanding of bill impacts and the fact that bill impacts may affect customers with large families and not just profligate consumers of electricity. Given this, the Panel is inclined to give somewhat more weight to the bill impacts than the conservation impacts.

In addition, this increase in conservation comes at a cost, which is disproportionately borne by a small sub-group of ratepayers. For example, in its Reply Submission, FortisBC estimates that the percentage of customers with bill increases above 20 percent rises from 0.2 percent to 2.7 percent when the customer impact changes from 95 percent to 90 percent. Additionally, the maximum bill impact rises from 22.6 percent to 36.2 percent and the Block 1 rate falls further below the current flat rate.

The Panel questions whether it is just and fair to disproportionately burden these ratepayers while, in essence, reducing rates for a greater number of customers. BCSEA argues that Option 7 is not “punitive”, nor does it agree “with the premise that customers with electric heat are a sub-group that would be disproportionately impacted by Option 7.” (BCSEA Final Submission, pp. 1-3) BCSEA further submits that a RIB rate is not inherently unjust, unreasonable, unduly discriminatory or unduly preferential. The Panel agrees, but is of the opinion that a RIB rate should be calibrated to ensure that the intended benefits are not out of proportion to their costs and that these costs should be borne by as broad a base of ratepayers as possible. **Thus the Panel agrees with FortisBC’s proposed 95 percent bill impact criteria.**

4.5 Block 1 and Block 2 Rates

The Block 1 and Block 2 rates are determined as a function of the Customer Charge, threshold and customer impact criterion, meaning that for each combination of these three determinants, there is only one combination of Block 1 and Block 2 rates that would collect the required revenue. (Exhibit B-1, p. 17)

4.5.1 FortisBC Submission

Given FortisBC's position regarding the Customer Charge, threshold and customer impact criterion, as described in Sections 4.2 to 4.4 above, FortisBC's proposal for a RIB rate remains its original preferred option (Option 8). A January 1, 2012 implementation, using the methodology described in the Application to determine the rate, would produce a RIB rate with the following components:

- A Customer Charge of \$29.65 per billing period;
- A Block 1 rate of 8.453 cents per kWh; and
- A Block 2 rate of 12.408 cents per kWh.

(FortisBC Final Submission, p. 7)

This determination is described at length in Exhibit B-11, in response to the Commission's request for clarification on how 2012 rates are to be calculated, as well as in Exhibit B-13 in response to BCOAPO IR2 Q4a. (FortisBC Final Submission, pp. 7-8) The above RIB rate stands in contrast to the current flat rate, which if continued in 2012, would yield a Customer Charge of \$31.25 and an Energy Charge of 9.816 cents per kWh. FortisBC notes that the actual RIB rate will vary from the above description as it depends upon the month of implementation and the amount of actual residential consumption that occurs up to the implementation date while under the flat rate. (FortisBC Final Submission, p. 7)

4.5.2 Intervener Submissions

BCSEA did not comment specifically on the attributes of Block 1/Block 2 rates in FortisBC's proposed Option 8 or in any other RIB rate options. However, FortisBC's proposed RIB rate components as described in Section 4.5.1 cannot be supported by BCSEA given its support for the 90 percent customer bill impact, as opposed to the 95 percent customer bill impact supported by FortisBC.

BCOAPO submits that “there really is no need for FortisBC to implement a RIB rate in order to send the proper price signals to customers” and that “the correct action is no action at all.” (BCOAPO Final Submission, p. 6) As a result, BCOAPO did not comment on the specific levels of the Block 1 and Block 2 rates.

Strata KAS2464 and Nelson Hydro express their overall support for the RIB rate as proposed by FortisBC without commenting specifically on the levels of the Block 1 and Block 2 rates.

4.5.3 FortisBC Reply

In Reply, FortisBC stresses that if levels for the Customer Charge, threshold and customer impact criterion are selected and deemed to be the most appropriate on an individual basis but then generate a Block 1 and Block 2 rate combination that is ineffective or unpalatable, then one may conclude that a RIB rate may not provide the best solution. Furthermore, manipulating the rate themselves would compromise the other rate determinants. (FortisBC Reply, p. 7)

4.5.4 Commission Determination

The Panel recognizes that once the three key determinants - the Customer Charge, threshold and customer impact criterion - have been selected, there is only one combination of Block 1 and Block 2 rates that can satisfy the revenue requirement constraint. **Given the Commission Panel’s approval of FortisBC’s proposal for each of the determinants, it follows that the Panel also agrees with its proposal for the Block 1 and Block 2 rates. The Panel also acknowledges that the Block 1 and Block 2 rates will differ somewhat from the values of 8.453 and 12.408 cents per kWh respectively as they are dependent upon the specific 2012 implementation date.**

4.6 FortisBC's Long-Run Marginal Cost

The issue of determining FortisBC's true LRMCM arose as the Commission probed the potential relationship between the utility's LRMCM and the level of the Block 2 rate and, in particular, the appropriateness of capping the Block 2 rate at the LRMCM.

FortisBC defines LRMCM as the cost to acquire additional energy where existing resources are insufficient to meet load requirements. In the near to medium term, FortisBC expects to meet incremental requirements through increased market purchases. (Exhibit B-8, Commission Panel IR 7.1) This is why, in a first instance, FortisBC calculated its LRMCM based on the forecast of the market price of energy as opposed to construction of new resources. In the additional evidence filed at the Commission Panel's request, FortisBC acknowledged that a LRMCM from new resources could be developed from a forecast of the cost of potential new resources. FortisBC submits that a reasonable proxy for the cost of new resources in the long-term is the BC New Resources Market Energy Curve presented in its 2012 Long-Term Resource Plan. (Exhibit B-11, pp. 16-17) The following table summarizes FortisBC's various marginal cost and LRMCM values presented throughout this Application.

Table 3: FortisBC's Marginal Cost and Long-Run Marginal Cost of Energy

Definition	Value	Reference
Marginal Cost: short-term avoided costs over the 2012 to 2015 period, based primarily on avoided 3808 Energy Purchases with minor amount of market purchases and surplus sales)	\$38.04 per MWh	Exhibit B-8, Commission Panel IR 7.1 Exhibit B-8, Commission Panel IR 7.2
Long-Run Marginal Cost: cost to acquire additional power through market purchases where existing resources are insufficient to meet load requirements	\$84.94 per MWh	Exhibit B-8, Commission Panel IR 7.1 Exhibit B-8, Commission Panel IR 7.2

<p>Long-Run Marginal Cost: cost to acquire additional power from new resources</p>	<p>\$111.96 per MWh (30-year levelized value starting in 2011 using a nominal discount rate of 8 percent)</p> <p>\$125.80 per MWh (including 11 percent losses)</p>	<p>Exhibit B-11, p. 17</p>
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Source: Exhibit B-11, p. 17

In the second round of Information Requests, FortisBC was asked to confirm that the LRMC set at \$125.80 per MWh did not include the cost of delivery and to calculate its LRMC segmented by: 1) the energy cost (including line losses); 2) transmission delivery cost; and 3) distribution delivery cost. (Exhibit B-12, BCUC 2.9.3; BCUC 2.9.6) In response, FortisBC affirms that the plant-gate levelized value of \$111.96 per MWh is the estimated required contractual price to procure energy from a newly constructed BC generation resource and the \$125.80 per MWh includes line losses of 11 percent. FortisBC also confirms that the LRMC of \$125.80 per MWh does not include other delivery costs, since it assumes that any incremental transmission costs would be paid directly by the project proponent or would be reflected in an adjustment to the plant-gate price paid to the project. FortisBC does not, however, indicate by how much the plant-gate price would need to be adjusted to reflect those delivery costs. (Exhibit B-12, BCUC 2.9; BCUC 2.9.6)

4.6.1 FortisBC Submission

FortisBC acknowledges that fundamentally the move to marginal cost based pricing is undertaken to set prices that lead to the most efficient use of resources and that, purely in terms of economic theory, it may not be desirable to price any electricity above the marginal cost. (Exhibit B-11, pp. 15-16) However, FortisBC submits that, given the utility's current cost structure and existing rates, pricing the Block 2 rate at LRMC fails the test of workability. Indeed, the LRMC of \$125.80 per MWh is only slightly above the Block 2 rate of \$0.12408 per kWh if the RIB rate as proposed by FortisBC becomes effective in 2012. An increase in the Block 2 rate of only 1.4 percent would push it beyond the LRMC. FortisBC further argues that, in order to have the LRMC cap the Block 2 rate and given the mandate to lower the Customer Charge, subsequent rate increases would impact

only the Block 1 rate, which would then rapidly lead to a convergence of the Block 1 and Block 2 rates and effectively nullify the conservation impact. In addition, FortisBC submits that residential customers are far more likely to look at the Block 1/Block 2 rate differential when making consumption-related decisions than they are to relate the Block 2 rate to any measure of LRMC. As a result, they argue conservation would be driven more by customer consideration of the rate differential than of whether the Block 2 rate is above or below the LRMC value. (FortisBC Final Submission, pp. 8-9)

In conclusion, FortisBC recommends that no cap be introduced on the Block 2 rate at this time. (FortisBC Final Submission, p. 9)

4.6.2 Intervener Submissions

BCSEA agrees that the Block 2 rate should not be capped going forward as annual revenue requirement increases would more or less quickly cause the Block 2 rate to reach the cap and the Block 1/Block 2 rate differential to begin to disappear and states that the priority should be on inducing conservation. Should the Commission choose to cap the Block 2 at the LRMC, BCSEA submits that the reference point for the Block 2 rate should be FortisBC's marginal cost of new generation and not a blended figure that includes market supply. (BCSEA Final Submission, p. 5)

BCOAPO acknowledges FortisBC's view that capping its Block 2 rate at its LRMC would result in a rapid convergence of the two block rates with dwindling conservation impacts resulting. BCOAPO further notes in its written submission:

"... the inherent flaw in FortisBC's reasoning is that they have interpreted the purpose of this exercise as being the introduction of RIB rates and the reduction of electricity use. Instead, BCOAPO submits that RIB rates are not and should not be the overall objective, but rather a means to an end. The means is the rate structure and the end is to encourage efficient electricity use via rates that send the proper price signals to encourage customers to make the appropriate consumption decisions and this can only be achieved using a RIB rate structure when the LRMC is significantly higher than the existing rate."

This leads the BCOAPO to conclude that FortisBC is a different utility than BC Hydro with significantly different circumstances regarding rates and avoided costs. Consequently, the two utilities are not directly comparable and BCOAPO argues there is really no need for FortisBC to implement a RIB rate in order to send the proper price signals to customers, as they are coming soon, whether the utility has a RIB or not. (BCOAPO Final Submission, pp. 5-6)

Mr. Shadrack, Nelson Hydro and Strata KAS2464 do not address FortisBC's LRMC or the issue of capping the Block 2 rate in their respective Final Submissions.

4.6.3 Commission Determination

In the 2007 BC Hydro Rate Design Application Decision, the Commission acknowledged the pivotal role of conservation rates and found that conservation is the only practical way to avoid dilution of the Heritage benefit with the ever increasing reliance on high marginal cost of incremental supply (BC Hydro 2007 RDA Decision, p. 57, Order G-130-07). In the 2008 BC Hydro Residential Inclining Block (RIB) Decision, the Commission determined that the long-run cost of new supply is the appropriate referent for the Step-2 energy rate (BC Hydro 2008 RIB Decision, p. 107, Order G-124-08). The Panel finds that no new evidence has been provided in this proceeding to cause it to depart from those conclusions. **Accordingly, the Commission Panel determines that the long-run marginal cost of new supply continues to be the appropriate referent for the Block-2 energy rate.**

Should, then, the Block 2 rate be capped at the long-run marginal cost of new supply? The Panel accepts FortisBC's submission that pricing electricity above FortisBC's long-run marginal cost is not economically efficient. However, the Panel is not prepared to direct that the Block 2 rate be capped at the LRMC as proposed by FortisBC in this hearing. Table 3 above shows three different marginal costs:

1. Short-term avoided costs based on avoided Rate Schedule 3808 Energy Purchases;
2. LRMC to acquire additional power through market purchases; and

3. LRMC to acquire additional power from new resources.

While the Panel considers the most appropriate referent to be the cost of acquiring energy through new resources, we note that all of the above marginal costs represent only the cost of acquiring the energy. Thus, there is ambiguity between the LRMC as defined by FortisBC and the true long-run marginal cost of new supply to the customer. The Block 2 rate is a delivered rate, while the LRMC is a cost of acquisition – it only relates to the cost of procuring energy but does not include the LRMC of transporting that energy to customers through transmission and distribution networks. FortisBC estimates the LRMC at \$125.80 per MWh, or 12.58 cents per kWh, which includes line losses of 11 percent, but does not include other delivery costs. FortisBC has provided no further information about the cost to deliver this additional energy acquired from market purchases or new resources. Accordingly, the Panel finds that there is insufficient evidence to support the position of the BCOAPO that there is “...no need for FortisBC to implement a RIB rate in order to send the proper price signals to customers.”

FortisBC’s proposed Block 2 rate is 12.408 cents per kWh, assuming a 2012 implementation date, which is below its estimated LRMC cost of 12.58 cents per kWh, which includes line losses but excludes other delivery costs. Thus, the Panel is satisfied that this Block 2 rate is below the actual delivered LRMC. Because of the uncertainty of the actual LRMC, the Panel does not agree that the Block 2 rate be capped at this time. **However, FortisBC is directed to provide an update of the full long-run marginal cost of acquiring energy from new resources, including the cost to transport and distribute that energy to the customer as part of the reporting to be submitted in 2014.**

4.7 Pricing Principles

Throughout this written hearing process, the term “Pricing Principle” referred to the manner in which future rate increases are applied to the Customer Charge, Block 1 rate and Block 2 rate. FortisBC’s proposed Pricing Principle (Pricing Principle 1), which allows the Customer Charge to decrease over time in relation to the other RIB rate components, is as follows:

- Customer Charge:** exempt from revenue requirement rate increases but subject to rebalancing adjustments;
- Block 1:** adjusted by an amount equal to the sum of the general revenue requirement increase and any rebalancing adjustments; and
- Block 2:** adjusted by an amount sufficient to recover the balance of the general revenue requirement and any rebalancing adjustments.

(Exhibit B-1, p. 15)

In its Application, FortisBC also examined three alternative Pricing Principles which, together with Pricing Principle 1, are summarized in the following table.

Table 4: FortisBC's Pricing Principles Summary

Pricing Principles Summary			
	Treatment of Customer Charge	Treatment of Block 1 Rate	Treatment of Block 2 Rate
Pricing Principle 1	<ul style="list-style-type: none"> • Exempt from ARR* and BC Hydro flow-through Increase • Rebalancing applied 	<ul style="list-style-type: none"> • Subject to all increases 	<ul style="list-style-type: none"> • Calculated residually to ensure Revenue requirement is collected
Pricing Principle 2	<ul style="list-style-type: none"> • Exempt from ARR* and BC Hydro flow-through Increase • Rebalancing applied 	<ul style="list-style-type: none"> • Frozen 	<ul style="list-style-type: none"> • Calculated residually to ensure Revenue requirement is collected
Pricing Principle 3	<ul style="list-style-type: none"> • Subject to all increases 	<ul style="list-style-type: none"> • Subject to all increases 	<ul style="list-style-type: none"> • Calculated residually to ensure Revenue requirement is collected
Pricing Principle 4	<ul style="list-style-type: none"> • Subject to all increases 	<ul style="list-style-type: none"> • Frozen 	<ul style="list-style-type: none"> • Calculated residually to ensure Revenue requirement is collected

*ARR = Annual Revenue Requirement

(FortisBC Final Submission, p. 10)

4.7.1 FortisBC Submission

FortisBC believes that its proposed Pricing Principle provides the most workable combination because Pricing Principles 3 and 4 do not result in a lowering of the Customer Charge and therefore do not comply with Commission Order G-156-10 and Pricing Principle 2 causes the Block 2 rate to escalate too quickly resulting in a block differential that is too large and unduly penalizes some customers. Thus, FortisBC submits that the Commission should approve Pricing Principle 1. (FortisBC Final Submission, p. 10)

4.7.2 Intervener Submissions

BCSEA supports FortisBC's proposed Pricing Principle 1, which it considers a middle-of-the-road approach compared to the alternatives because the Block 1 rate does not increase so quickly as to eliminate the Block 1/Block 2 rate differential and the Block 2 rate does not increase excessively. (BCSEA Final Submission, p. 5)

In its written submission, Nelson Hydro also supports FortisBC's proposed Pricing Principle. (Nelson Hydro Final Submission, p. 2) BCOAPO and Strata KAS2464 do not comment specifically on this topic. Mr. Shadrack, who proposes an entirely different RIB rate scenario in his written submission, does not comment specifically on FortisBC's proposed Pricing Principle 1.

4.7.3 Commission Determination

We have previously determined that the Customer Charge will be frozen (except for rate rebalancing increases). Pricing Principles 3 and 4 are not consistent with this approach and are not considered further. The difference between Pricing Principles 1 and 2 is that the Block 1 rate is frozen in Pricing Principle 2 and subject to all rate increases in Pricing Principle 1. Freezing the Block 1 rate will cause the differential between the two rates to increase over time. The Panel accepts FortisBC's submission that this will quickly result in a block differential that is too large and

will unduly penalize some customers. **Accordingly, the Panel directs FortisBC to apply Pricing Principle 1 to any future price increases until 2015.**

4.8 Anticipated Conservation

4.8.1 FortisBC Submission

FortisBC “is supportive of the Government’s Energy Plan goal of having conservation offset 50 per cent of cumulative load growth by 2020.” To this end it has proposed rate structures that encourage energy efficiency and conservation. It believes that “RIB rates can encourage customers to conserve by increasing electricity rates as consumption rises.” In all the scenarios it has proposed, the price of energy consumed in the upper block is greater than the current flat rate energy price and represents a real rate increase over current charges for the consumption above the threshold. (Exhibit B-1, p. 4)

The proposals are the first step down the path to FortisBC’s commitment to implementing time based conservation and efficiency rates. “FortisBC believes that the proposal for a RIB rate contained in this application is one component of a comprehensive demand reduction strategy that helps the Commission and the Province fulfill conservation goals.” (Exhibit B-1, p. 8) In the Application, FortisBC defines the conservation impact of the RIB rate as “the estimated reduction in both consumption and demand that is attributable to the implementation of the given RIB rate option.” (Exhibit B-1, p. 20) FortisBC later clarifies that no capacity savings were assumed for the RIB program and the only change is to FortisBC’s energy requirements. (Exhibit B-5, BCUC 1.9.3, BCUC 1.17.6)

FortisBC adopts the assumption that a 1 percent change in price in the Block 1 rate will result in -0.05 to -0.20 percentage change in energy consumption and that a 1 percent change in price in the Block 2 rate will result in -0.10 to -0.30 percentage change in consumption. Based on these assumptions, the proposed two-block RIB rate, if approved, would result in estimated conservation savings in the range 1.9 percent to 5.5 percent. (Exhibit B-1, Table 7-2, p. 22)

FortisBC acknowledges the uncertainty inherent in assessing conservation impacts of the RIB rate structures but takes the position that this should not be viewed as a barrier to proceeding to choose the preferred option. FortisBC believes that based on the conservation analysis, the implementation of a RIB rate will lead to conservation behaviour on the part of those customers. (FortisBC Final Submission, p. 10)

It is clear that a RIB rate is not FortisBC's preferred approach to encouraging conservation. "The Application was filed upon the Direction provided in BCUC Order G-156-10. Of its own volition, FortisBC would not have arrived at the conclusion that a RIB rate is preferred as a method of mitigating increasing demand...The Company takes no position on the likelihood or degree to which conservation results will materialize while the RIB rate is in place and further cannot forecast annual conservation impacts with any degree of confidence." (Exhibit B-5, BCUC 1.18.1, p. 60)

Part of the uncertainty on the conservation results that can be attributed to a RIB rate is the unknown relationship between the existing DSM programs and a conservation RIB rate that would cover 99 percent of its residential customers. FortisBC believes that introducing a RIB rate may reduce DSM expenditures but DSM targets will not be affected by RIB rates. It submits that: "factors make it difficult to predict the impact of RIB on DSM programs as a whole. FortisBC expects a positive impact on DSM measures that result in significant energy savings..." (Exhibit B-5, BCUC 1.23.1), and that: "RIB and other conservation rates are not considered 'part' of PowerSense DSM...Although the goal of conservation rates is similar to PowerSense programs, the expertise required to design and implement them is different. For this reason, conservation rates have not been considered part of the PowerSense program." (Exhibit B-13, BCOAPO 2.2c) FortisBC has not indicated whether or not its DSM targets would be reviewed as a result of the implementation of a new rate structure that would cover almost all of its residential customers. Nor has it indicated whether it would initiate a new or an updated Conservation Potential Review (CPR) to assess the potential of DSM savings and therefore, new DSM targets, following implementation of the RIB rate.

With regard to conservation savings and energy efficiency from RIB rate, FortisBC is of the opinion that: “Savings would occur due to a change to a RIB rate starting with the time the rate is implemented. It may take several years for those full savings to occur due to the fact that a portion of the savings result from behavioural changes, which would be immediate, and another portion results from a change in electric-consuming devices, which occurs over time. FortisBC does not have an estimate of the savings in each year as a result of the RIB rate.” (Exhibit B-6, Okanagan Environmental Industry Alliance (OEIA) 1.11.1.2)

Another source of uncertainty on conservation results is FortisBC’s assumption on elasticity. FortisBC submits: “Given the uncertainty surrounding elasticity estimates and the resulting conservation forecasts, FortisBC believes a prudent and conservative approach to evaluating the efficacy of the RIB rate is to implement its preferred option, submit to the Commission its plan for monitoring and evaluating the RIB rate over the period ending December 31, 2013, and then address any program modifications that may be indicated by the resulting report.” (FortisBC Final Submission, pp. 10-11) Therefore, “FortisBC ... requests the Commission approve a RIB rate that includes: ...The development of a plan to evaluate the conservation impact of the RIB with a reporting requirement for the period covering the date of implementation to December 31, 2013.” (FortisBC Final Submission, p. 13)

4.8.2 Intervener Submissions

BCSEA supports the approval of a FortisBC RIB rate as a means to achieve conservation. However, BCSEA strongly prefers Option 7 where ‘90% see <10% bill impact’, rather than Option 8 proposed by FortisBC where ‘95% see <10% bill impact’, as “RIB rate designs based on the ‘90% see <10%’s constraint consistently induce more conservation than those based on the ‘95% see <10%’s constraint.” (BCSEA Final Submission, pp. 1-3)

BCSEA also supports a requirement that FortisBC use a control group to enhance its evaluation of the impact of the proposed RIB rate. It submits that “...FortisBC’s ability to quantify the analysis in the RIB rate application was limited by the lack of data on the elasticity of demand of FortisBC’s

own customers. Using a control group in parallel with the introduction of the RIB rate is an opportunity for FortisBC to develop elasticity data for its own customers.” In BCSEA’s view, this opportunity should not be missed. It submits that such data would be very useful both for evaluating the RIB rate and for FortisBC’s consideration of time-of-use rate designs after its Advanced Metering initiative has been implemented. (BCSEA Final Submission, p. 6)

Nelson Hydro supports “the implementation of the RIB rate as proposed by FortisBC as a means to encourage conservation. Nelson Hydro’s interest in this is to monitor the outcome of this rate design to determine answers to:

- What energy consumption reductions are achieved,
- Do the consumption reductions persist or are they temporary,
- How does the rate design impact electric heat customers,
- What operating cost reductions result to the utility?”

(Nelson Hydro Final Submission, p. 3)

“BCOAPO suggests ... the promotion of conservation through pricing is only appropriate where it encourages energy efficiency initiatives that cost less than new supply and if the pricing is sending signals that actually lead to cost-effective decisions.” (BCOAPO Final Submission, p. 3) BCOAPO believes that “A change in focus with a greater emphasis on “cost-effectiveness” would align the objectives of FortisBC’s conservation rates with its DSM programs...” (BCOAPO Final Submission, p. 3)

BCOAPO submits that there is a serious disconnect between the screening measures adopted by FortisBC in this rate design and the Bonbright Principles. (BCOAPO Final Submission, p. 4) It states that FortisBC has fundamentally erred in its screening measures by deciding that an efficient price signal is that which encourages some portion of customers to reduce consumption. This leads to FortisBC’s claim that the primary goal of the RIB is to promote conservation with no consideration as to how the resulting Block rates ...compare to the Utility’s avoided costs (BCOAPO Final

Submission, pp. 4-5).

BCOAPO argues that “To introduce a RIB rate where both Blocks will vary from the LRMC more than the current flat rate within the short term is counterproductive because it does not promote the efficient use of electricity while causing material customer impacts...It may be a difficult pill for parties to swallow... to find that the correct action is no action at all, but that is, in BCOAPO’s submission, the case here.” (BCOAPO Final Submission, p. 6)

Strata KAS2464 believes the RIB rate proposal will result in only marginal conservation benefits. (Strata KAS2464 Final Submission, p. 3) It supports a requirement that FortisBC use a control group to evaluate the impact of the proposed RIB rate and disagrees with FortisBC submission that it is premature. Throughout the RIB application FortisBC did not demonstrate it understood the demands of its own customers.” (Strata KAS2464 Final Submission, pp. 1-2)

Mr. Shadrack does not specifically address the linkage of the RIB rates to conservation. However, he does make several observations related to the introduction of the RIB rate, including:

- “the Commission needs to set an inclining block rate with clear hard targets and a mechanism to get there.” (Shadrack Final Submission, p. 1)
- “any inclining block rate design...should allow the customer to recoup the cost of investing in energy efficient devices in a timely manner.” (Shadrack Final Submission, p. 2)
- “the introduction of an inclining block rate, in and of itself, must be accompanied by clearly focused DSM programs that compliment [sic] the inclining block rate” (Shadrack Final Submission, p. 3)

4.8.3 Commission Determination

Balancing energy conservation with the Bonbright Principles is an appropriate evaluative approach by FortisBC to select the RIB rate option. While we acknowledge the submission made by BCSEA regarding Option 7’s inducement of greater conservation than the proposed Option 8, we are not

persuaded that this, in itself, is sufficient to over-ride the balance of the various Bonbright Principles achieved in Option 8. In particular we have previously discussed the issues to be considered in the trade-off between bill impact and conservation. The Commission Panel acknowledges FortisBC's position that the conservation impact between the various options may be small enough to not have much impact on the final determination of the rate option selected. However we feel that further analysis of conservation impacts is required because of the uncertainties articulated by FortisBC.

The Panel fully supports FortisBC's intention to develop a plan to monitor and estimate the conservation impacts that can be attributed to RIB implementation. **Accordingly, the Commission Panel directs FortisBC to meet a reporting requirement covering the period from the date of implementation to December 31, 2013.** This report (the 'RIB Rate Evaluation Report') should provide FortisBC, the Commission and the Interveners the opportunity to evaluate the effectiveness of the RIB rate program, particularly with respect to its impact on conservation. In addition to including an update of the Conservation Potential Review and a report on the potential effects of interaction between RIB rates and DSM targets, the RIB Rate Evaluation Report should also address the questions raised by Nelson Hydro at page 3 of its Final Submission:

- What energy consumption reductions are achieved,
- Do the consumption reductions persist or are they temporary,
- How does the rate design impact electric heat customers, and
- What operating cost reductions result to the utility?

The RIB Rate Evaluation Report is to be submitted to the Commission by no later than April 30, 2014.

We also concur with both BCSEA and Strata KAS2464 that it is not too early to make use of a control group to enhance the evaluation of the impact of the RIB rate. **Accordingly, the Panel directs FortisBC to establish a control group in conjunction with the introduction of the RIB rate**

to develop elasticity data for its own customers. The results of this elasticity study are also to be included in the RIB Rate Evaluation Report. In this regard we note that in its Final Submission, FortisBC indicated that it works together with municipal utilities in offering demand side programs and incentives. It may be helpful if FortisBC could provide comparisons of consumption of its direct and indirect customers throughout the reporting period.

While the Commission Panel acknowledges BCOAPO's position on the desirability of understanding the linkage of conservation rates to the long-run marginal cost of electricity, we do not concur with its view that it is counterproductive to introduce a RIB rate because it does not promote the efficient use of electricity. The conservation associated with the RIB rate is, in itself, a legitimate reason for its introduction, taking account of all Bonbright Principles of pricing, not just the principle associated with efficient price signals.

4.9 Voluntary TOU rates and Mandatory RIB Rates

4.9.1 FortisBC Submission

As noted in Section 4.8.1, it is clear that a RIB rate is not FortisBC's preferred approach to encouraging conservation. Submissions of FortisBC from the Application and the IR process include:

- “The consensus reached during the public consultation, and the preference of FortisBC, was for maintaining the status quo pending the AMI implementation (Exhibit B-1, p. 13)
- “FortisBC does not believe that the implementation of a RIB rate eases the introduction of time based rates. The Company further believes that the interim nature of the RIB rate, being effective between the current flat rate and the implementation of any time-based rates will create difficulties for the transition. FortisBC is concerned that customer confusion may result from the implementation of the two types rate types in fairly quick succession.” (Exhibit B-5, BCUC 1.4.3)
- “FortisBC believes that time based rates provide conservation benefits which are at a minimum as good as a RIB rate while simultaneously providing customers with more of an opportunity to conserve, thus reducing their total cost of electricity.” (Exhibit B-5,

BCUC 1.6.3,) “FortisBC believes that the primary goal of time-based rates is to conserve capacity, but that energy conservation also occurs.” (Exhibit B-12, BCUC 2.4.1)

FortisBC submits that time-based conservation rates offer the best alternatives to flat rates for FortisBC and its customers. It is currently FortisBC’s intention to introduce some suite of time-based rates to complement the RIB rates, likely on a voluntary participation basis, if a RIB rate is mandated by the Commission. (Exhibit B-5, BCUC 1.6.4) However, despite this reservation, FortisBC states that the implementation of the RIB rate is a stand-alone program and that the eventual move to time-based rates does not feature as a consideration in any of the work done to date.” (Exhibit B-6, OEIA 1.5.1)

The RIB rate Application has not changed FortisBC’s intention regarding the implementation of Advanced Metering Infrastructure and time based rates although those rates are now expected to be optional rather than mandatory (Exhibit B-6, OEIA 1.8.4.1). FortisBC states that “in due course” it will consider a rate structure that combines time-based and RIB principles, but believes that such a rate structure is overly complex to customers (Exhibit B-13, BCSEA 2.31.1) At this juncture, FortisBC has not yet completed any detailed analysis on the effects of wide-scale time based rates that could be implemented after an Advanced Metering Infrastructure was implemented, and therefore it cannot state conclusively as to whether TOU rates can achieve better conservation than RIB rate. (Exhibit B-8, BCUC IR 1.5.2, p. 20)

4.9.2 Intervener Submissions

Mr. Russell Work is opposed to the proposal to implement the RIB rate, as he believes that “it will have minimal impact on energy conservation.” (Exhibit B-6, Work IR 1, p. 1) He argues for promoting TOU metering but provided no evidence on the benefits of doing so. No other Intervener addressed the relative merits of a voluntary TOU rate and mandatory RIB rates or provided any submission on combining RIB and TOU rates.

4.9.3 Commission Determination

FortisBC refers to the “interim nature” of the RIB rate, being effective between the current flat rate and the implementation of any time based rates. The Commission Panel cautions FortisBC against concluding that the RIB rate is only temporary in nature, particularly in view of not yet having made application for its AMI initiative, nor for any TOU rates associated with it. The RIB rate could well be an integral part of a longer-term conservation initiative and should be designed with that in mind, including the approaches used to measure and manage its ongoing efficacy.

In its submission, FortisBC proposes that: “Customers who choose to take service under FortisBC’s existing conservation rate, Time-of-Use billing, would not be compelled to move to the RIB rate.” The Panel acknowledges the difficulties of applying the RIB rate to these customers and accordingly **directs that customers currently receiving service under Time-of-Use billing will not be charged at the RIB rate until and unless these customers elect to move from TOU billing to RIB rate billing. However, the Panel directs FortisBC to apply the RIB rate on a mandatory basis to all residential customers not currently receiving service under TOU billing.**

If FortisBC moves forward with its Advanced Metering Initiative as it currently plans to do, it will need to develop a strategy to integrate the RIB rate regime with its TOU rate regime. If this is accomplished during the reporting requirement period, there will be an opportunity to include the effect of combined TOU and RIB rates on conservation in the RIB Evaluation Report. **The Panel directs FortisBC to consider effective ways to report this information and include the results in the RIB Rate Evaluation Report.**

4.10 Indirect Customers

On October 27, 2011, the Commission Panel requested that the parties address in their Final Submissions the following questions:

1. Should the Panel consider the implications of conservation rate setting for indirect customers of FortisBC in this proceeding?
2. Should the Panel consider the implications of conservation rate setting for these indirect customers in future FortisBC rate design proceedings?

(Exhibit A-22)

4.10.1 FortisBC Submission

FortisBC submits that whether or not the Commission “should” have these considerations is a matter of provincial policy “best left to the Commission and government to determine.” FortisBC further submits that if the questions are rephrased to inquire as to whether the Commission “can” directly influence rates of indirect customers in the current regulatory environment, then FortisBC’s answer is “no” to the two questions. FortisBC states that electric utilities who are direct customers of FortisBC, as a Wholesale customer class, set their own rates for their customers, and are not regulated by the Commission. FortisBC also submits: “The Commission may consider the implications of conservation rate setting for FortisBC direct customers, including those rates for wholesale municipal electric utilities; however the Commission cannot consider the implications of conservation rate setting for FortisBC indirect customers.” (FortisBC Final Submission, p. 12)

FortisBC further submits that: “Municipal electric utilities who are direct customers of FortisBC (Wholesale customer class) set their own rates for their customers, and are not regulated by the Commission in doing so other than if operating outside municipal boundaries. The definition of ‘public utility’ in the *Utilities Commission Act* excludes ‘a municipality or regional district in respect of services provided by the municipality or regional district within its own boundaries’.”

FortisBC also acknowledges that these five municipal utilities’ residential customers, though indirect, do, in aggregate, comprise a significant portion of FortisBC’s load. These indirect residential customers will not be subject to a conservation rate.

FortisBC submitted the 'Residential End Use Survey' which "took into account responses from indirect customers of FortisBC because the purpose of the Survey was in part to assist FortisBC in forecasting future electrical demand and in designing demand side management programs."

(FortisBC Final Submission, p. 12)

4.10.2 Intervener Submissions

BCSEA also submits that the Panel should not consider the implications of conservation rate setting for indirect customers in this proceeding. BCSEA further notes that it has insufficient information to comment on the consideration of implications on indirect customers of future rate design applications by FortisBC. (BCSEA Final Submission, p. 6)

Nelson Hydro responded to the first of the above questions with the comment: "No.... we note that broadening the scope to include customers of other utilities could require a substantive repeat of the process." In response to the second question, it submitted: "No. In BC there are eight distinct electrical utilities and the proceedings for one should not spill over into the others. Some of these utilities do not require BCUC approval for their rate setting." (Nelson Hydro Final Submission, p. 1)

4.10.3 Commission Determination

The Panel agrees with the submissions of the parties, but notes that five of FortisBC's wholesale customers: the Cities of Kelowna, Grand Forks, Nelson, Penticton and Summerland all have a significant component of residential ratepayers. In this regard, the Panel also notes that FortisBC and municipal utilities work together in offering demand side programs and incentives and this cooperative approach to DSM is mutually beneficial.

Accordingly, we question why FortisBC should not work together with these municipal utilities to assist them to implement a RIB rate for their own residential customers as part of a demand side management program. As FortisBC gains experience with its own RIB rate, and if it can demonstrate customer acceptance and conservation savings, it will be in a better position to assist

its wholesale customers with their own RIB rates, should they choose to go that route.

FortisBC could also consider a two-tier conservation rate for its Wholesale customers. In this regard, the Panel refers to a recent Commission Decision concerning the resolution of a complaint filed by Zellstoff Celgar Limited Partnership regarding the failure of FortisBC to complete a general service agreement and FortisBC's application of RS 31 demand charges. (Celgar Complaint Decision, Order G-188-11) In that Decision, FortisBC was directed to submit an application to the Commission by May 31, 2012 for a two-tier stepped transmission rate to reflect conservation objectives. FortisBC was further directed to consult with all classes of its customers to determine guidelines for the level of non-Power Purchase Agreement embedded cost of power to which eligible self-generation customers should be entitled.

The Panel is of the opinion that ideally, all of FortisBC's customers, including Wholesale customers, should be charged a rate that reflects conservation objectives. Accordingly, after introduction of inclining block rates for its residential customers, FortisBC should consider the implementation of two-tier rates for its wholesale customers. **In particular, the Panel directs FortisBC, as part of its RIB Rate Evaluation Report, to provide an analysis of the potential effect of a two-tier wholesale rate on the consumption of its wholesale customers.**

5.0 SUMMARY OF COMMISSION PANEL DETERMINATIONS

In this decision, the Panel has provided a number of directives. These are summarized below:

- 1. FortisBC is directed to implement a RIB rate, which consisting of four components: a Customer Charge, a threshold, and two block rates, set at the following values, based on May 1, 2011 rates:**
 - A Customer Charge of \$28.93 per billing period;
 - A threshold set at 1,600 kWh per billing period;
 - A Block 1 rate of 7.828 cents per kWh; and
 - A Block 2 rate of 11.272 cents per kWh.

- 2. FortisBC is to implement this RIB rate as soon as is reasonably practicable and by no later than July 31, 2012. FortisBC is to file a revised Tariff Sheet for Rate Schedule 01, no later than 30 days prior to the date the RIB rate becomes effective.**

- 3. FortisBC is directed to apply Pricing Principle 1 to future rate increases for the years 2012 to 2015. Specifically:**
 - a. The Customer Charge is exempt from general rate increases, other than rate rebalancing increases;
 - b. The Block 1 rate is subject to general and rebalancing rate increases; and
 - c. The Block 2 rate is increased by an amount sufficient to recover the remaining required revenue (i.e., the residual rate).

- 4. FortisBC is directed to apply the RIB rate on a mandatory basis to all residential customers with the exception of those taking service at a Time of Use rate at the time this Decision is issued.**

5. **FortisBC is directed to file a RIB Rate Evaluation Report (Report), covering the period from the date of implementation to December 31, 2013. The Report should provide the utility, the Commission and the interveners the opportunity to evaluate the effectiveness of the RIB rate program, in particular with respect to its impact on conservation. The RIB Rate Evaluation Report is to include, but not be limited to, the following:**
 - a. **The energy consumption reductions achieved;**
 - b. **Whether the consumption reductions persist or are temporary;**
 - c. **How the rate design impacts electric heat customers; and**
 - d. **The resulting operating cost reductions to the utility.**

The Report should also include an in-depth analysis of the full long-run marginal cost to acquire energy from new resources, including the long-run marginal cost to transport and distribute that energy to the customer, and how that cost compares to the Block 2 rate; the combined effect of integrating TOU and RIB rates on the conservation achieved by the RIB, should that information be available; an update of the Conservation Potential Review and report on the potential effects of interaction between RIB rates and DSM targets; comparison of energy usage of indirect customers with the energy usage of direct customers; and an analysis of the potential effect of a two-tier wholesale rate on the consumption of its wholesale customers. The Report is to be filed with the Commission by no later than April 30, 2014.

6. **FortisBC is directed to establish a control group in conjunction with the introduction of the RIB rate to develop elasticity data for its own customers. The results of this elasticity study are to be included in the RIB Rate Evaluation Report.**

DATED at the City of Vancouver, in the Province of British Columbia, this 13th day of January 2012.

Original signed by:

D. MORTON
PANEL CHAIR

Original signed by:

L.A. O'HARA
COMMISSIONER

Original signed by:

M.R. HARLE
COMMISSIONER



**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER G-3-12**

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IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

An Application by FortisBC Inc.
for Approval of a Residential Inclining Block Rate

BEFORE: D. Morton, Panel Chair/Commissioner January 13, 2012
L.A. O'Hara, Commissioner
M.R. Harle, Commissioner

ORDER

WHEREAS:

- A. On March 31, 2011, FortisBC Inc. (FortisBC) filed an application for approval of a Residential Inclining Block (RIB) Rate (Application) to the British Columbia Utilities Commission (Commission) pursuant to sections 58 to 61 of the *Utilities Commission Act*;
- B. The Application proposes to implement a default mandatory RIB rate for FortisBC's residential customers. The RIB rate is composed of a Customer Charge and two rate blocks separated by a threshold level of consumption of 1,600 kWh per two-month billing period;
- C. The Application examines 18 options. The option proposed by FortisBC has the Block 1 and Block 2 rates set at levels such that 95 percent of customers will experience annual bill impacts of less than 10 percent;
- D. FortisBC proposes to exempt the Customer Charge from future rate increases, other than those related to rebalancing through 2015, effectively reducing the Customer Charge relative to the other billing determinants. FortisBC also proposes to apply future general revenue requirement rate increases as follows:
 - 1) Block 1 rate would be increased by an amount equal to the sum of the general revenue requirement increase and any rebalancing adjustments; and
 - 2) Block 2 rate would be calculated residually to recover the balance of the general revenue requirement and any rebalancing adjustments;
- E. FortisBC proposed that the Application be reviewed through a written hearing process, including only one round of Information Requests (IRs) and concluding on June 15, 2011 by way of its Reply Submission. Based on this Regulatory Timetable, FortisBC anticipated the RIB rate structure to become effective January 1, 2012;
- F. The Application was reviewed through a written hearing process. The Regulatory Timetable was revised a number of times and ultimately included:

**BRITISH COLUMBIA
UTILITIES COMMISSION**

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- One round of IRs from Commission staff and Interveners;
- One round of IRs from the Commission Panel;
- A Procedural Conference held in Vancouver on August 3, 2011 to consider, among other matters, whether FortisBC had filed sufficient evidence to enable the evaluation of the Application, and whether the Application should proceed with an oral or written hearing;
- The filing by FortisBC of additional evidence on August 24, 2011 to clarify, among other issues, how 2012 RIB rates are to be calculated, the value of the long-run marginal cost, elasticity and conservation measures, and the customer charge calculated on a cost of service basis;
- An additional round of IRs from Commission staff and Interveners; and
- The filing of evidence by Interveners;

G. The Commission has reviewed the Application and the material submitted through the written hearing process.

NOW THEREFORE the Commission, for the reasons set out in Decision issued concurrently with this Order, determines as follows:

1. FortisBC is directed to implement a RIB rate consisting of four components: a Customer Charge, a threshold and two block rates, set at the following values, based on May 1, 2011 rates:
 - a. A Customer Charge of \$28.93 per billing period;
 - b. A threshold set at 1,600 kWh per billing period;
 - c. A Block 1 Rate of 7.828 cents per kWh; and
 - d. A Block 2 Rate of 11.272 cents per kWh.
2. FortisBC is to implement this RIB rate as soon as is reasonably practicable, and by no later than July 31, 2012. FortisBC is to file a revised Tariff Sheet for Rate Schedule 01, no later than 30 days prior to the date the RIB rate becomes effective.
3. FortisBC is directed to apply Pricing Principle 1 to future rate increases for the years 2012 to 2015. Specifically:
 - a. The Customer Charge is exempt from general rate increases, other than rate rebalancing increases;
 - b. The Block 1 rate is subject to general and rebalancing rate increases; and
 - c. The Block 2 rate is increased by an amount sufficient to recover the remaining required revenue (*i.e.*, the residual rate).
4. FortisBC is directed to apply the RIB rate on a mandatory basis to all residential customers with the exception of those taking service at a Time-of-Use (TOU) rate at the time this Decision is issued.

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UTILITIES COMMISSION**

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5. FortisBC is directed to provide a RIB Rate Evaluation Report (Report) covering the period from the date of implementation to December 31, 2013. This Report should provide the utility, the Commission and Interveners the opportunity to evaluate the effectiveness of the RIB program, in particular with respect to its impact on conservation. The Report is to include, but not be limited to, the following:
- a. The energy consumption reductions achieved;
 - b. Whether the consumption reductions persist or are temporary;
 - c. How the rate design impacts electric heat customers; and
 - d. The resulting operating cost reductions to the utility.

The Report should also include an in-depth analysis of the full long-run marginal cost of acquiring energy from new resources, including the long-run marginal cost to transport and distribute that energy to the customer, and how that cost compares to the Block 2 rate; the combined effect of integrating TOU and RIB rates on the conservation achieved by the RIB, should that information be available; an update of the Conservation Potential Review and report on the potential effects of interaction between RIB rates and Demand Side Management targets; comparison of energy usage of indirect customers with the energy usage of direct customers; and an analysis of the potential effect of a two-tier wholesale rate on the consumption of its wholesale customers. This Report should be submitted to the Commission no later than April 30, 2014.

6. FortisBC is directed to establish a control group in conjunction with the introduction of the RIB rate to develop elasticity data for its own customers. The results of this elasticity study are to be included in the RIB Rate Evaluation Report.

DATED at the City of Vancouver, in the Province of British Columbia, this 13th day of January 2012.

BY ORDER

Original signed by:

D. Morton
Panel Chair/Commissioner

THE REGULATORY PROCESS

FortisBC filed the RIB rate application on March 31, 2011. By Order G-68-11 the Commission established an Initial Regulatory Timetable for the review process. (Exhibit A-2)

Due to the limited interest expressed by parties for the Procedural Conference scheduled for May 10, 2011, the Commission Panel decided to cancel that proceeding and requested written submissions on the procedural matters. (Exhibit A-3)

On May 20, 2011, after reviewing the written submissions by parties the Commission Panel established a written hearing process and issued a revised Regulatory Timetable by Order G-94-11 which included two rounds of Information Requests (IRs). (Exhibit A-7)

In response to some technical issues raised by Commission Staff during the review process FortisBC indicated that it had identified a discrepancy in some of the information presented in the RIB application. Accordingly, the Commission Panel suspended the Regulatory Timetable pending FortisBC's proposed update. (Exhibit A-10, Exhibit A-11)

In response to the June 27, 2011 filing of FortisBC's Errata No. 3 (Exhibit B-1-2), the Commission Panel issued its own IR to FortisBC on July 8, 2011. (Exhibit A-12)

In reference to FortisBC's responses to the Panel IR, Mr. Shadrack's IR, and to the issues of simplification and a convenient comparison of RIB rate options raised by BCSEA, the Commission Panel convened a Procedural Conference for August 3, 2011 in Vancouver. (Exhibit A-15) Specifically, the Panel was seeking submissions from the participants on whether there was sufficient evidence on the record to introduce a RIB rate and whether the hearing of the Application by way of a written hearing process remains preferable to an oral hearing process. (Exhibit A-15)

Following the Procedural Conference the Panel, by Order G-142-11, directed FortisBC to file additional evidence as described in the Reasons for Decision on or before August 24, 2011. FortisBC was also directed to ensure that all evidence that is filed is accurate. (Appendix A-17)

By Letter L-84-11 the Commission Panel confirmed that the hearing will continue to proceed as a written hearing and established a revised Regulatory Timetable leading to the completion of the evidentiary record by November 21, 2011. (Exhibit A-20)

The only Intervener filing Intervener Evidence was Mr. Shadrack.

APPENDIX A

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On October 27, 2011, the Commission Panel requested submissions regarding conservation rates for indirect customers of FortisBC. ((Exhibit A-22)

Final Submissions were filed by FortisBC and Interveners on November 4, 2011 and November 14, 2011 respectively, with a reply Submission of FortisBC filed on November 21, 2011.

IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

FortisBC Inc.
Residential Inclining Block Rate Application

EXHIBIT LIST

Exhibit No.	Description
<i>COMMISSION DOCUMENTS</i>	
A-1	Letter dated April 6, 2011 – Appointment of Panel
A-2	Letter dated April 12, 2011 and Order G-68-11 - Establishing an initial Regulatory Timetable and Procedural Conference
A-3	Letter dated May 5, 2011 - Cancellation of Procedural Conference
A-4	Letter dated May 9, 2011 – Commission Staff response to Exhibit C10-2
A-5	Letter dated May 11, 2011 – Commission Information Request No. 1
A-6	Letter dated May 12, 2011 – Amended Initial Regulatory Timetable
A-7	Letter dated May 20 – Revised Regulatory Timetable and Reasons for Decision
A-8	Letter dated May 20 – Response to WR regarding Exhibit C15-2
A-9	Letter dated May 30 – Correction to the Regulatory Timetable
A-10	Letter dated June 21, 2011 – Possible amendment to the current Regulatory Timetable
A-11	Letter dated June 24, 2011 - Suspension of Regulatory Timetable
A-12	Letter L-55-11 dated July 8, 2011 – Commission Panel Information Requests
A-13	Letter dated July 12, 2011 – Clarification regarding Suspension of Regulatory Timetable
A-14	Letter dated July 13, 2011 – Clarification regarding Interveners Information Request No. 2
A-15	Letter Dated July 25, 2011 – Procedural Conference

Exhibit No.	Description
A-16	Letter Dated July 25, 2011 – Order of Appearances for Procedural Conference on August 3, 2011
A-17	Letter Dated August 10, 2011 and Order G-142-11 – Revised Regulatory Timetable
A-18	Letter Dated August 15, 2011 –Clarification – Order G-142-11
A-19	Letter Dated September 8, 2011 –Commission Information Request No. 2
A-20	Letter Dated October 14, 2011 – Commission Letter L-84-11 Revised Regulatory Timetable
A-21	Letter Dated October 20, 2011 –Commission Information Request No. 1 to Intervener Mr. Andy Shadrack
A-22	Letter Dated October 27, 2011 – Commission Request for Comments from Applicant and Interveners in Final Submissions
A-23	Letter Dated November 21, 2011 – Response on Late Final Submission
A2-1	Letter Dated May 11, 2011 – Commission Staff filing British Columbia Hydro and Power Authority – 2008 Residential Inclining Block Rate – Appendix C, Utility Survey Results
A2-2	Letter Dated May 11, 2011 – Commission Staff filing Regulation of the Minister of Ministry of Energy, Mines and Petroleum Resources – Ministerial Order No. M 271 dated November 6, 2008 – Demand-Side Measures
A2-3	Letter Dated October 19, 2011 – Email exchange between BCUC Staff and FortisBC Inc. (Michael Leyland) confirming FortisBC’s residential rates from January 2005 to October 2011

APPLICANT DOCUMENTS FORTISBC INC.

B-1	FORTISBC INC. (FBC) Letter dated March 31, 2011- Filing Residential Inclining Block Rate Application
B-1-1	Letter dated June 7, 2011 – FBC Submitting Errata No. 1 to the Application
B-1-2	Letter dated June 27, 2011 – FBC Submitting Errata No. 3 to the Application including responses to BCUC IR 1 and responses to BCOAPO IR1

Exhibit No.	Description
B-2	Letter dated April 6, 2011- FBC Submitting comments on NH (C2-1) letter regarding proposed regulatory agenda
B-3	Letter dated May 9, 2011 – FBC Submitting comments on proposed process
B-4	Letter dated May 13, 2011 – FBC Reply submissions on Proposed Process
B-5	Letter dated June 7, 2011 – FBC Submitting Responses to BCUC Information Requests No. 1
B-5-1	Letter dated June 17, 2011 – FBC Submitting Erratum No. 2 to its Responses to Commission Information Requests No. 1
B-6	Letter dated June 7, 2011 – FBC Submitting Responses to Interveners Information Requests No. 1
B-7	Letter dated July 14, 2011 – FBC Submitting Response to BCUC Letter L-55-11
B-8	Letter dated July 22, 2011 – FBC Responses to BCUC IRs on Errata 3
B-9	Letter dated July 29, 2011 – FBC Submitting Errata to IR No.1 from BCUC and TR
B-10	Letter dated August 2, 2011 - FBC Submitting responses to Exhibit A-15
B-10-1	Letter dated August 4, 2011 - FBC Submitting corrected spreadsheet
B-11	Letter dated August 24, 2011 - FBC Submitting Additional Evidence
B-12	Letter dated September 29, 2011 – FBC Responses to BCUC IR No. 2
B-13	Letter dated September 29, 2011 – FBC Responses to Intervener IRs No. 2

INTERVENER DOCUMENTS

C1-1	TARNOFF, RICHARD (TR) Online Registration dated April 4, 2011– Request for Intervener Status by Richard Tarnoff
C1-2	Letter dated May 14, 2011 Via Email – TR Submitting Information Request No. 1
C1-3	Letter dated July 31, 2011 – TR Submitting comments regarding Basic Charge
C1-4	Letter Dated September 8, 2011 Via Email – TR Submitting IR No. 2

Exhibit No.	Description
C2-1	NELSON HYDRO (NH) Letter dated April 5, 2011- Submitting comments regarding proposed regulatory agenda
C2-2	Letter dated May 11, 2011 – NH Submitting comments on procedural matters
C2-3	Letter dated May 16, 2011 – NH Submitting Information Request No. 1
C2-4	Letter Dated September 8, 2011 Via Email – NH Submitting IR No. 2
C3-1	OKANAGAN ENVIRONMENTAL INDUSTRY ALLIANCE (OEIA) Online Registration dated April 14, 2011 - Request for Intervener Status by Ludo Bertsch
C3-2	Letter dated May 10, 2011 – OEIA Submitting comments on procedural matters
C3-3	Letter dated May 16, 2011 – OEIA Submitting Information Request No. 1
C4-1	BRITISH COLUMBIA HYDRO AND POWER AUTHORITY (BCH) Online Registration dated April 14, 2011 - Request for Intervener Status by Joanna Sofield
C5-1	BRITISH COLUMBIA OLD AGE PENSIONERS ORGANIZATION ET AL (BCOAPO) Email Registration dated April 15, 2011 – Request for Intervener Status by Jim Quail
C5-2	Letter dated May 10, 2011 – BCOAPO Submitting comments on proposed process
C5-3	Letter dated May 13, 2011 – BCOAPO Submitting Information Request No. 1
C5-4	Letter dated June 28, 2011 – BCOAPO Submitting Information Request No. 2
C5-5	Letter dated August 3, 2011 - BCOAPO Submitting notice of Counsel change
C5-6	Letter Dated September 8, 2011 Via Email – BCOAPO Submitting IR No. 2
C6-1	CITY OF KELOWNA Email Registration dated April 19, 2011 – Request for Intervener Status by Cindy McNeely
C7-1	GABANA, NORMAN (GN) Email Registration dated April 21, 2011 – Request for Intervener Status
C7-2	Letter dated May 9, 2011 – GN Submitting comments on proposed process
C7-3	Letter dated May 15, 2011 Via Email – GN Submitting Information Request No. 1
C8-1	RAJAPAKSHE, RASIKA Email Registration dated April 25, 2011 – Request for Intervener Status

Exhibit No.	Description
C9-1	SHADRACK, ANDY (SA) Email Registration dated April 26, 2011 – Request for Intervener Status
C9-2	Letter dated May 9, 2011 – SA Submitting comments on proposed process
C9-3	Letter dated May 11, 2011 Via Email – SA Submitting comments on Oral Hearing
C9-4	Letter dated May 12, 2011 Via Email – SA Submitting Information Request No. 1
C9-5	Letter dated May 16, 2011 Via Email – SA Submitting Additional Information Request No. 1
C9-6	Letter dated June 12, 2011 Via Email – SA Request for extension
C9-7	Letter dated June 16, 2011 Via Email – SA Submitting comments regarding IR No. 1 responses
C9-8	Letter dated June 21, 2011 Via Email – SA Submitting response to Exhibit A-10
C9-9	Email dated July 8, 2011 – SA Submitting Late Information Request No. 2
C9-10	Email dated July 16, 2011 – SA Comment regarding FBC Information Request No. 1 Responses
C9-11	Letter dated July 28, 2011 Via Email – SA Submitting comments
C9-12	Letter Dated September 8, 2011 – SA Submitting Information Request No. 2
C9-13	Letter Dated October 13, 2011 Via Email – SA Submitting Evidence
C9-14	Letter Dated October 13, 2011 Via Email – SA Submitting Response to Commission Information Request No. 1
C10-1	STRATA CORPORATION KSA2464 (sck) Email Registration dated April 26, 2011 – Request for Intervener Status by Henry Stanski and John Loewen
C10-2	Letter dated May 5, 2011 Via Email – SCK Submitting comments on Application
C10-3	Letter dated May 9, 2011 Via Email – SCK Response to Exhibit A-3
C10-4	Letter dated May 15, 2011 Via Email – SCK Submitting further comments on Application
C10-5	Letter dated May 23, 2011 - SCK Additional Comments and Questions #2

Exhibit No.	Description
C10-6	Letter dated July 11, 2011 – SCK Comments and Information Request No. 2
C10-7	Letter dated July 31, 2011 – SCK submissions regarding A-15
C11-1	B.C. SUSTAINABLE ENERGY ASSOCIATION (BCSEA) Web Registration dated April 28, 2011 – Request for Intervener Status by William J. Andrews
C11-2	Letter dated May 10, 2011 – BCSEA Submitting comments on procedure
C11-3	Letter dated May 16, 2011 – BCSEA Submitting Information Request No. 1
C11-4	Letter dated July 12, 2011 – BCSEA Submitting Information Request No. 2
C11-5	Letter Dated September 8, 2011 Via Email – BCSEA Submitting IR No. 2
C12-1	SLACK, BURL Facsimile Registration dated April 30, 2011 – Request for Intervener Status
C13-1	IRRIGATION RATEPAYERS GROUP (IRG) Dated May 4, 2011 - Request for Intervener Status by Fred Weisberg
C14-1	KOOTENAY TAX PAYERS ASSOCIATION (KTPA) Dated May 4, 2011 - Request for Intervener Status by Josh Smienk
C14-2	Letter dated May 4, 2011 – KTPA Submitting request to register for the procedural conference
C15-1	WORK, RUSSELL (WR) Letter Dated May 4, 2011 Via Email and Online Registration - Request for Late Intervener Status by Russell Work
C15-2	Letter submitted May 19, 2011 – WR Submitting Information Request No. 1

LETTERS OF COMMENT

E-1	Mersereau, Brent - Letter of Comment dated April 25, 2011 Via Email
E-2	Marty, Maurice - Letter of Comment dated July 31, 2011