Dear Madam:

Re: FortisBC Inc. (FBC)
   Residential Inclining Block Rate Application (RIB)
   BCUC Project No. 3698628
   BCUC Order G-68-11

This is the final submission of the B.C. Sustainable Energy Association (BCSEA). This submission responds to the November 4, 2011 final submission of FortisBC Inc.

1. The four basic elements of a RIB rate

BCSEA agrees with FBC’s submission that the FBC RIB rate should have four basic components: a customer charge, a single threshold and two rate blocks. This would make FortisBC’s RIB rate consistent in this respect with BC Hydro’s RIB rate.

2. The ‘90% see < 10%’ bill impact constraint induces more conservation

BCSEA strongly supports approval of a RIB design based on the ‘90% see < 10%’ bill impact constraint, as distinct from the ‘95% see < 10%’ bill impact constraint.

RIB rate designs based on the ‘90% see < 10%’ bill impact constraint consistently induce more conservation than those based on the ‘95% see < 10%’ constraint, holding equal the choices that are made regarding customer charge, Block 1/Block 2 threshold, and pricing principles.  

In designing the RIB rate to induce the most conservation while meeting the other valid constraints and objectives, the most important choice is adoption of the ‘90% see < 10%’ bill impact constraint.

A primary example is between Option 8 and Option 7. FBC proposes Option 8, which has a bill impact criterion of ‘95% see < 10%’ and a threshold of 1600 kWh/two-month billing period. Option 7 is the same except that it has a bill impact criterion of ‘90% see < 10%’. Option 7 causes more conservation than Option 8. Table 1 highlights the difference in the conservation impact estimates between Option 7 and Option 8.

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1 FortisBC Final Submission, p.2.
2 The term “pricing principles” is used here to refer to the rules governing how future changes in revenue requirement and rebalancing are translated into changes in the customer charge, Block 1 rate and Block 2 rate; as distinct from the “Bonbright Principles” of rate design.
Table 1: Conservation Impact of Option 7 and Option 8 (Source: Exhibit B-10-1)

<table>
<thead>
<tr>
<th>Option</th>
<th>Customer Impact Criterion</th>
<th>Conservation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.5/.10</td>
</tr>
<tr>
<td>7</td>
<td>90% see &lt;10%</td>
<td>3.0%</td>
</tr>
<tr>
<td>8</td>
<td>95% see &lt;10%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

BCSEA respectfully disagrees with FBC’s characterization of the conservation differential between Option 7 and Option 8 as being “relatively modest.” The conservation estimates for Option 7 are approximately half as much again compared to those for Option 8. Figure 1 shows in graphic form that Option 7 achieves substantially more conservation than Option 8. The dark bars show the estimated conservation savings with Option 7, for each of the low, medium and high elasticity assumptions. The lighter bars show the conservation estimates for Option 8.

Figure 1. Conservation Estimates of Option 7 and Option 8

FBC argues against Option 7 by saying that “An unduly punitive rate which may disproportionately impact a sub-group of customers, such as those with electric heat, should be avoided.” First, BCSEA respectfully disagrees with the premise that a RIB rate such as Option 7 is “punitive.” A RIB rate is not inherently unjust, unreasonable, unduly discriminatory or unduly preferential. This is confirmed by the Commission’s September 24, 2008 decision approving BC Hydro’s RIB rate application (G-124-08).

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3 FBC final submission, p.7, line 8.
4 Ibid.
Second, BCSEA respectfully disagrees with the premise that customers with electric heat are a sub-group that would be disproportionately impacted by Option 7 (or by Option 8, for that matter). Customers with electric heat are distributed across the spectrum from low to high consumption. FortisBC itself acknowledges that Option 8 would result in more customers with electric heat having lower bills than having higher bills:

FortisBC has also considered the impact of the RIB rate on low income and electric heat customers and finds that the Company’s preferred option [Option 8] generally results in lower bills for customers in these segments (see Table 9-1).  

Significantly, the impact of Option 7 and Option 8 is exactly the same in terms of the percentage of customers with electric who see a bill decrease or a bill increase. Table 2 is an extract from Table 9-1 that confirms that for both Option 7 and Option 8 the percentage of customers with electric heat who see an annual bill increase is 41% and the percentage who see a decrease is 59%.

<table>
<thead>
<tr>
<th>Electric heat</th>
<th>Percent Customers Seeing Annual Increase</th>
<th>Percent Customers Seeing Annual Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41%</td>
<td>59%</td>
</tr>
</tbody>
</table>

It should also be noted that in the BC Hydro RIB rate decision, the Commission determined that “electric heat customers are not unduly discriminated against as a result of a simple two-step inclining block rate structure.”

To clarify, a RIB rate inevitably creates the strongest incremental price signals, compared to a flat rate, for customers consuming at the high end of the consumption spectrum. BCSEA acknowledges that among customers at the high end of the consumption spectrum there are proportionally more customers with electric heat, and with single-family homes, than at the low end of the consumption spectrum. However, a RIB rate disproportionally impacts these high-consumption customers solely because of their disproportionally high consumption, not because they use electric heat or have a single-family home.

In summary on this point, BCSEA submits that the Commission should prefer RIB rate designs based on the ‘90% see < 10%’ bill impact criterion because those designs induce substantially more conservation without causing unacceptable bill impacts.

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6 Exhibit B-1, p.2.  
7 G-128-08, Reasons for Decision, page 80.  
8 This effect is accentuated because customers at the high end of the spectrum consume many times more energy than do customers even in the middle of the consumption spectrum.  
9 Exhibit B-12, Table BCUC IR2 Q2.2b.
3. Freeze the Customer Charge

BCSEA agrees with FBC that the evidence supports the conclusion that “Lowering the Customer Charge below $28.93 [per two-month billing period] will result in smaller block differential and lower conservation impact, all else being equal.” Accordingly, BCSEA supports approval of a RIB rate design being based on the Customer Charge being frozen at the prevailing amount (as proposed by FBC).

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 puts a priority on maximizing the amount of conservation within the various constraints. Therefore, BCSEA supports a RIB design that uses the available bill impact room to increase the Block 1/Block 2 rate differential rather than to decrease the Customer Charge.

BCSEA acknowledges that there are other pros and cons of decreasing the Customer Charge. However, BCSEA finds it unnecessary to take a position on those points because, as stated above, its priority is on conservation.

4. Threshold

In BCSEA’s view, three main alternatives for the Block 1/Block 2 threshold have emerged:

- 1600 kWh per two-month billing period, preferred by FBC, is roughly the median consumption in the residential class (half consume less; half consume more),
- 1500 kWh per two-month billing period is roughly 90% of median consumption, which is the basis of BC Hydro’s RIB threshold as approved, and
- 1350 kWh per two-month billing period is BC Hydro’s actual RIB threshold.

Each of the three has advantages in terms of being relatively easily communicated. Generally speaking, a lower threshold exposes more customers to Block 2 and yields a conservation estimate that is either the same as or, in some designs, slightly lower than with a higher threshold.

For example, Table 3 shows that Option 2 (95% see < 10%, 1350 kWh threshold) and Option 8 (95% see < 10%, 1600 kWh threshold) have identical conservation estimates.

<table>
<thead>
<tr>
<th>Option</th>
<th>Customer Impact Criterion</th>
<th>Threshold kWh</th>
<th>Conservation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.5/.10</td>
<td>.10/.20</td>
</tr>
<tr>
<td>2</td>
<td>95% see &lt;10%</td>
<td>1350</td>
<td>1.9%</td>
</tr>
<tr>
<td>8</td>
<td>95% see &lt;10%</td>
<td>1600</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Table 3: Conservation Impact of Option 2 and Option 8
(Source: Exhibit B-10-1)

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10 FBC Final Submission, page 4, lines 7-8.
11 Exhibit B-13, BCSEA IR 2.15.1.
12 G-128-08, section 1 (iii).
Table 4 shows that Option 1 (90% see < 10%, 1350 kWh threshold) has slightly less estimated conservation than does Option 7 (90% see <10%, 1600 kWh threshold).

<table>
<thead>
<tr>
<th>Option</th>
<th>Customer Impact Criterion</th>
<th>Threshold kWh</th>
<th>Conservation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90% see &lt;10%</td>
<td>1350</td>
<td>2.8% 5.6% 8.3%</td>
</tr>
<tr>
<td>7</td>
<td>90% see &lt;10%</td>
<td>1600</td>
<td>3.0% 6.0% 8.8%</td>
</tr>
</tbody>
</table>

FortisBC says it there is no compelling reason to vary the threshold from its proposed value of 1600 kWh/two-month billing period. BCSEA tends to agree, but considers that thresholds of either 1500 kWh or 1350 kWh/two-month billing period would also be acceptable.

5. Pricing principles and Block 2 rate cap

BCSEA supports Pricing Principle 1, as proposed by FBC. Freezing the Customer Charge has been addressed above. Compared to alternatives 2, 3 and 4, Pricing Principle 1 is a middle-of-the-road approach in which the Block 1 rate does not increase so quickly that the Block 1 rate/Block 2 rate differential is soon eliminated and in which the Block 2 rate does not increase excessively.

BCSEA agrees with FortisBC that the Block 2 rate should not be capped going forward. BCSEA’s view is that the priority should be on inducing conservation. Assuming a RIB rate is approved, the Block 2 rate will begin at an amount that is already close to FortisBC’s long run marginal cost (LRMC) and 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. Further, there is no evidence that FortisBC’s residential customers would actually choose to reject electricity consumption economically inefficiently if the Block 2 rate was to exceed the LRMC.

Alternatively, if the Commission does choose to cap the Block 2 rate based on FortisBC’s LRMC, then BCSEA would submit that the reference point for the Block 2 rate should be FortisBC’s marginal cost of new generation (i.e., not a blended figure that includes market supply).

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13 Pricing Principle 1 is: (a) Customer Charge is adjusted if there is a rebalancing between customer classes but otherwise is exempt from changes in the annual revenue requirement or the BC Hydro flow-through price; (b) Block 1 rate is subject to all increases; and (c) Block 2 rate is calculated residually to maintain class revenue neutrality.

14 FBC Final Submission, page 8.
6. Control group as part of evaluation

BCSEA supports a requirement that FortisBC use a control group to enhance its evaluation of the impact of the proposed RIB rate, such as was approved by the Commission for BC Hydro’s evaluation of its RIB rate.15

With respect, BCSEA does not agree with FortisBC’s response16 that it would be premature to decide whether a control group should be part of the evaluation of an FBC RIB rate. FortisBC’s ability to quantify the analysis in this RIB rate application was limited by the lack of data on the elasticities of demand of FortisBC’s own customers. This caused FortisBC to have to rely on a range of elasticity assumptions from other jurisdictions. Using a control group in parallel with the introduction of the RIB rate is an opportunity for the Company to develop elasticity data for its own customers. In BCSEA’s view, this opportunity should not be missed. Such data would be very useful both for evaluating the RIB rate and for the Company’s consideration of time-of-use rate designs after its Advanced Meters Initiative (AMI) has been implemented.

7. Approval of a FortisBC RIB rate

BCSEA urges the Commission to approve a FortisBC RIB rate in this proceeding. As discussed above, BCSEA considers Option 7 superior to Option 8 (preferred by FBC). However, BCSEA would echo FortisBC’s alternative argument17 that if its preferred RIB design option is not selected, then some other of the 25 “Reasonable Options”18 should be approved.

8. Indirect customers

By letter of October 27, 2011 (Exhibit A-22), the Commission requested submissions regarding FortisBC’s “indirect” customers, i.e., customers of municipal utilities that are themselves customers of FortisBC. In response:

1. BCSEA submits that Panel should not consider the implications of conservation rate setting for “indirect” customers in this proceeding. BCSEA understands that indirect customers’ rates are determined by their respective municipal utilities with Commission approval, and that the indirect customers’ rates are not the subject of FortisBC’s RIB rate application.

2. Presumably, conservation rate designs would be canvassed in rate design applications by the municipal utilities. BCSEA has insufficient information to comment on the consideration of implications on indirect customers of future rate design applications by FortisBC.

Conclusion

BCSEA supports Commission approval of a FortisBC RIB rate comprised of a customer charge, a single threshold and two rate blocks. BCSEA strongly prefers RIB rate designs based on the ‘90% see < 10%’ bill impact criterion because those designs induce substantially more conservation without causing unacceptable bill impacts. For that reason, Option 7 is superior to

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15 Exhibit B-12, BCUC IR 2.1.3.
16 Ibid.
17 FortisBC Final Submission, p.11.
18 Exhibit B-11, Appendix B.
Option 8. BCSEA supports a RIB design that maximizes conservation by using the available bill impact room to increase the Block 1/Block 2 rate differential rather than to increase energy rates by decreasing the Customer Charge. BCSEA supports a Block 1/Block 2 threshold of 1600 kWh/two-month billing period, but considers thresholds of 1500 kWh or 1350 kWh/two-month billing period to be acceptable as well. BCSEA supports Pricing Principle 1, with no LRMC cap on the Block 2 rate going forward. BCSEA supports a requirement that FortisBC use a control group to enhance its evaluation of the impact of the proposed RIB rate.

All the above is respectfully submitted.

Yours truly,

William J. Andrews

Barrister & Solicitor

cc. Distribution List by email