

March 27, 2017

**VIA COMMISSION E-FILING SYSTEM**

British Columbia Utilities Commission  
6th Floor, 900 Howe Street  
Vancouver, BC V6Z 2N3

**Attention: Ms. Erica Hamilton, Commission Secretary**

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Our reference:16-3822

Dear Sir/Mesdames:

**BC Hydro F2017-F2019 Revenue Requirement Application (RRA)**  
**Association of Major Power Customers of BC (AMPC)**  
**Information Request (IR) No. 1 Responses to Non-Integrated Areas Ratepayers Group (NIARG)**

We are legal counsel to AMPC in this matter, and enclose AMPC's response to NIARG IR No. 1.

Please contact the writer if you have any questions.

Yours truly,



Matthew D. Keen

MDK/roe

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**AMPC Response to Non-Intergrated Areas Ratepayer Group  
Information Request No. 1**

**BC Hydro and Power Authority  
F2017-2019 Revenue Requirements Application**

**March 27, 2017**

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**1.0 Reference: Exhibit C-9-7, PDF 5**

**Preamble:** “EITEs cannot pass the impact of these rate increases to their customers in a global marketplace. The rapid rate escalation also makes it challenging for industrial customers to sufficiently adapt their businesses to absorb these impacts.”

- 1.1 Would the challenges to sufficiently adapt their businesses to absorb electricity rate impacts be avoided, decreased or deferred for AMPC members by a less rapid rate escalation? Please provide examples of the nature of business adaptations made AMPC members in this context.
- 1.2 Are there particular annual percentage increases in electricity rates that make AMPC members’ abilities to adapt to and absorb rate increases more or less challenging? Please discuss with reference to specific annual percentage rate increases and the corresponding business adaptations that may be required.
- 1.3 Please discuss the extent to which AMPC members’ abilities to adapt to and absorb electricity rate increases are constrained or prevented by the “stepwise nature of industrial customers’ electricity demand”?

**Responses:**

1.1 While a lower rate of increase may help to defer the impacts, the competitive issue is the relatively high level of rates reached following recent cumulative increases. All customers strive to reduce the size of the electrical bills through investments in improved efficiencies and the exact nature of these adaptations varies by industry and customer.

1.2 Yes. These challenges emerge when electricity rate increases outpace the pricing trends of AMPC member products. The rate of inflation, or consumer price index, is generally a useful reference point, as it is subject to many of the same influences. AMPC’s evidence supports BC Hydro’s targeted 2.6% rate increase for the conclusion of the 10-year rate plan.

1.3 Industrial loads tend to comprise large pieces of equipment that operate most efficiently at their design capacity. Partial loadings are less efficient and result in increased costs per unit of production. The “stepwise nature of industrial customers’ electricity demand” refers to the limited manner in which electricity intensive and trade exposed industrial customers are able to adapt to and absorb electricity rates given the nature of facility operation. Their ability to adapt and absorb electricity rate increases by cutting other costs economically is limited, and the price-taking nature of the firms means that all cost reductions lead to increased profits and can be expected to have already been implemented. As a result, in response to electricity rate increases, especially those that exceed inflation, large blocks of load may drop off in a “stepwise manner”, i.e., entire mills, lines, plants, facilities, etc., once the business cannot absorb those costs and continue to operate profitably. In other words, the rate increases may cause the business to cross their breakeven threshold, necessitating a shutdown of all, or a significant portion, of their production.

## 2.0 Reference: Exhibit C-9-7, PDF 7.

**Preamble:** “AMPC is also concerned with the accuracy of the growth assumptions for the natural gas and LNG sector and the associated “knock-on” GDP effect built into BC Hydro’s LNG load forecast.”

- 2.1 Does AMPC membership include any oil, natural gas or LNG companies? If not, please discuss the source of AMPC’s knowledge of circumstances underlying growth assumptions for the oil, natural gas and LNG sectors in BC.
- 2.2 Is AMPC better suited or positioned than BC Hydro to develop growth assumptions for the oil, natural gas and LNG sectors in BC? If so, please explain the basis for that assertion.
- 2.3 Please identify specific BC Hydro growth assumptions for natural gas and LNG in BC that AMPC believes require adjustment, and explain the nature of such adjustments and the corresponding rationale.

### Responses:

2.1, 2.2, and 2.3:

A relatively small proportion of AMPC’s membership comprises petrochemical/oil and gas business. To date, AMPC’s membership has not included any LNG proponents.

AMPC members are not better suited than BC Hydro to make forecasts about the oil and gas and LNG sectors. Rather, like BC Hydro, AMPC members are large businesses that operate in the BC business environment. AMPC’s concerns emerge on the face of the record and are not unique. Delays to BC LNG projects, BC natural gas production linking to LNG development over the medium to long term, and over-optimistic oil and gas production forecasts are all uncontroversial risks.<sup>1</sup> Notably, the National Energy Board recognizes that there is considerable uncertainty regarding how much LNG will be exported from Canada, given there are numerous projects currently under construction around the world that could provide sufficient capacity to meet global LNG demand for many years to come.<sup>2</sup> Its report notes that some market observers suggest that it is more likely that Canada begins exporting LNG in the 2030s.<sup>3</sup>

AMPC’s evidence does not recommend a specific downward adjustment to BC Hydro’s natural gas and LNG load forecasts. It identifies the dramatic forecast growth,<sup>4</sup> the relatively higher risk that part of the forecast will be inaccurate, and recommends that the Commission respond to that risk. AMPC recommends that the Commission respond by being sensitive to the risk of demand destruction on the part of other industrial customers. The Commission can do so by supporting limited rate increases in the latter part of the 10-year plan, e.g., the 2.6% BC Hydro identified in this proceeding. The Commission can provide that support, by, among other things, (i) insisting that BC Hydro find further efficiencies to minimize amounts approved for collection in the rate-smoothing deferral account, and (ii) supporting creative rate options where and when they emerge.

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<sup>1</sup> E.g., see <http://www.cbc.ca/news/canada/british-columbia/lng-canada-kitimat-delays-1.3674798> and <https://energeticcity.ca/2016/12/kitimat-lng-might-not-built-ten-years/>.

<sup>2</sup> <https://www.neb-one.gc.ca/nrg/ntgrtd/fttr/2016/2016nrgftr-eng.pdf> at p. 102.

<sup>3</sup> <https://www.neb-one.gc.ca/nrg/ntgrtd/fttr/2016/2016nrgftr-eng.pdf> at p. 107.

<sup>4</sup> Exhibit C9-7, AMPC Evidence, Graph of Figure 3-3, p. 6.

### 3.0 Reference: Exhibit C-9-7, PDF 10

**Preamble:** “These effects are difficult to forecast generally, especially using BC Hydro’s current approach. To mitigate against unexpected changes in demand, AMPC recommends that both BC Hydro and the Commission have regard not just to relative rate increases within BC, but electricity prices and rate options available to industry in other jurisdictions, and the competitive pressures they face.”

- 3.1 In what specific ways should BC Hydro change its current approach to forecasting industrial customers’ electricity demand? Please explain how such changes would overcome or reduce current difficulty to forecast industrial demand.
- 3.2 To what extent does AMPC believe that BC Hydro and the Commission should inquire into and actively consider electricity prices, rate options and competitive pressures applicable to industry in other jurisdictions?
- 3.3 At what level of specificity should BC Hydro and the Commission’s inquiries or consideration reflect industry circumstances in other jurisdictions (i.e. continental, national, province/state, regional/local, etc.)? Please list all jurisdictions that BC Hydro and the Commission should have regard to in this context.
- 3.4 Please list each different industry that BC Hydro and the Commission should have regard to in jurisdictions other than BC.
- 3.5 Should BC Hydro and the Commission have regard to every government policy or program (e.g. reasonably comparable to BC Hydro’s \$100 million Thermal-mechanical Pulping Program and Mining Customer Payment Plan program) in every other jurisdiction (identified in 3.3 above) for every industry (identified in 3.4 above)? Please explain AMPC’s rationale.
- 3.6 Please discuss the practicality and potential cost implications of both BC Hydro and the Commission having regard to electricity prices, rate options and industry specific competitive pressures in other jurisdictions in the detail suggested by AMPC’s Responses to the preceding information requests.
- 3.7 To the extent that BC Hydro and the Commission are willing and able to have regard to circumstances facing industrial electricity customers in other jurisdictions, how would such knowledge help “mitigate against unexpected changes in demand” by industrial customers in BC? Please suggest specific mitigation measures that would be informed by circumstances in other jurisdictions and identify who would be likely to bear the costs and risks of those measures in BC.

#### Responses:

3.1 BC Hydro should be more conservative concerning industrial demand elasticity generally, and its individual customer probability approach should more clearly reflect the risk of one or more large customers stopping operations. When calculating the revenue increase expected from a particular percentage increase in rate levels the use of a price elasticity of minus 0.05 is inadequate for the industrial class.

3.2 BC Hydro and the Commission should be expected to have a sense of the Canadian and North American electricity industry, and the Pacific Northwest (PNW) area in particular.

They should be aware whether their practices and prices are out of step with those of other Canadian provinces, and particularly those with large integrated hydro-electric utilities. This awareness should increase when faced with circumstances like those we see today: an in-depth and critical report in 2012 that should have prompted a search for best practices, and annual increases exceeding inflation by one or two multiples over the long-term.

Hydro Quebec routinely monitors other utilities' pricing, and BC Hydro regularly makes reference to its residential pricing to show how its residential rates compare favourably to other jurisdictions. But AMPC has not seen a comparable use of the survey by BC Hydro to assess industrial pricing.

Fundamentally, the attractiveness of BC for new and continuing EITE industry depends in large part on the availability of reasonably priced electricity. If BC Hydro's rates are expensive for EITE industrial customers, that suggests the risk of demand destruction from further rate increases is greater than it would otherwise be if BC Hydro's rates were currently below market.

3.3 Those are all relevant points of comparison. AMPC believes the more information the Commission has, the better and more well supported its decision will be. That said, major provinces, neighbouring PNW states and provinces, large integrated hydro-electric utilities, and other BC utilities are the most relevant context to BC Hydro practices and pricing, although broader comparisons may show the difficulties EITE industries have competing in the global market.

3.4 BC Hydro and the Commission should have regard to major industries in BC, particularly EITE industries, and regulated electricity practices in the jurisdictions discussed in the response to 3.3. Where overlaps reflect material competitive risks, BC Hydro and/or the Commission should take note. For example, applied in reverse, Hydro Quebec would be expected to take note of BC Hydro's \$100 million Thermal-mechanical Pulp Program.

3.5. To the extent that creative rate options have material impacts on the rates paid by industrial customers, those rate options are again relevant context.

3.6 This is core regulatory work supported by the principles of Bonbright that should not imply any need to obtain additional resources at additional costs.

3.7 Knowing both the rates paid in other jurisdictions and rate options available to industrial customers provides the Commission with relevant context regarding the relative competitiveness of BC Hydro's rates for industry, and of special programs that are in place that may provide lower rates than those discussed in the survey. This information would assist in mitigating against demand destruction by allowing the Commission to take a proactive approach to setting rates for industrials, particularly while BC Hydro is in a period of energy surplus. Examples of how such knowledge would help are rate options like the freshet program, and limiting BC Hydro's rate increase to 2.6% in the remainder of the test period on the grounds that further internal efficiencies can be identified, to avoid the negative consequences of increasing industrial rates.

**4.0 Reference: Exhibit C-9-7, PDF 13.**

**Preamble:** “The rate increases facing price-sensitive EITE industries demand that the Commission carefully consider creative options as they arise.”

4.1 To what extent should BC Hydro and the Commission expect AMPC to be creative in developing or suggesting rate options that would encourage growth or maintenance of industrial demand and discourage industrial demand destruction? For example, does AMPC support a concept of rewarding industrial customers who maintain “their presence and support of the economy in BC” by shifting a proportion of their electricity costs to those industrial customers who carry out “lumpy exits [of] large loads”? Please discuss.

**Response:**

4.1 BC Hydro and the Commission should expect AMPC to continue to propose rate options and practices based on members’ experience in other jurisdictions.

**5.0 Reference: Exhibit C-9-7, PDF 14.**

**Preamble:** "Price moderation will also require the development of rate options that can address the erosion of competitive rate levels, and more frequent rate design corrections to revenue/cost ratios."

- 5.1 What specific frequency of rate design corrections to revenue/cost ratios does AMPC suggest? Please provide the rationale for the proposed frequency.
- 5.2 When should the next rate design correction to revenue/cost ratios take place and how long after that date should further rate design corrections to revenue/cost ratios be made?

**Responses:**

5.1 Approximately every five years, or about every second revenue requirement, based on practices in other jurisdictions. This would be of particular importance at the start of a PBR period, which is likewise often about 5 years.

5.2 Given the absence of effective rate rebalancing in roughly a decade, the current plan to revisit cost allocations (FACOSS) accompanied by appropriate rate adjustment by class for F2019 is imperative, especially in light of the significant deviations from cost of service that currently exist