

March 27, 2017

VIA COMMISSION E-FILING SYSTEM

British Columbia Utilities Commission
6th Floor – 900 Howe Street
Vancouver, BC V6Z 2V3

Attention: Ms. Erica Hamilton, Commission Secretary

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Our reference:16-3822

Dear Madame:

**BC Hydro F2017-F2019 Revenue Requirement Application (RRA)
Association of Major Power Customers of BC (AMPC) Response to Commission
Information Request (IR) No. 1**

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

Please contact the writer if you have any questions.

Yours truly,



Matthew D. Keen

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**AMPC Response to British Columbia Utilities Commission (BCUC)
Information Request No. 1**

**British Columbia Hydro and Power Authority (BC Hydro)
F2017-F2019 Revenue Requirements Application**

March 27, 2017

**1.0 Reference: Chapter 3 – LOAD FORECAST
Exhibit C9-7, pp. 5, 10; Exhibit C4-6, pp. 6, 8
Rate increase**

On page 5 of its Evidence, the Association of Major Power Customers (AMPC) states: “BC Hydro’s rates for industrial customers connected at transmission voltage under Rate Schedule 1823 (“RS 1823”) will be set by the Commission pursuant to Special Direction 7 (“SD 7”). Rates will increase by 4, 3.5 and 3%, respectively ...”

AMPC states on page 10: “...for rate-setting purposes, the forecast that BC Hydro has presented is quite bullish concerning natural gas production and LNG exports. AMPC is concerned that the fluid nature of the global natural gas market leaves this aspect of BC Hydro’s forecast uncertain.”

CEABC submits on page 6 of its Evidence: “The Montney production is growing more rapidly than any other area in B.C. And, it should be noted that this rapid and sustained growth is without any assistance from any potential LNG export industry. All of this growth is for existing markets. If industry capital investment plans are an indication, the growth of Montney production can be expected to continue well into the future.” CEABC further submits on page 8 that “[Encana]’s 2017 Montney program is set to deliver significant margin expansion.”

- 1.1 Please explain if AMPC’s concerns set out in its Evidence impact the F2017, F2018 or F2019 load forecast. If they do, please identify which test period years each of the load forecast issues raised relates to.
 - 1.1.1 If AMPC’s concerns impact the load forecast outside of the three year test period, please explain AMPC’s view of the role of the F2017–F2019 Revenue Requirements Application (RRA) regarding load forecasts that impact rates outside of the RRA.
- 1.2 Given the concern set out in its Evidence and the reference to the Government’s rate caps for BC Hydro’s rate increase in F2017, F2018 or F2019, please clearly explain AMPC’s position with respect to BC Hydro’s load forecast and revenue forecast in those respective years.
- 1.3 Without consideration of a rate cap, please explain the impact of a 10 percent increase or a 10 percent decrease in British Columbia Hydro and Power Authority’s (BC Hydro) industrial load forecast in F2017-F2019 on: i) the rate increase in the each of the F2017 to F2019 test periods; and ii) the rate increase beyond the test period.
- 1.4 With reference to CEABC’s submission on the oil and gas developments, please explain whether AMPC continues to believe that BC Hydro’s forecast concerning natural gas production and Liquid Natural Gas (LNG) exports is bullish. If yes, please comment on the magnitude of the potential over forecast for F2017–F2019 with respect to industrial load forecast and sales forecast.

Response:

1.1 AMPC's concerns about competitive electricity prices, and flawed assumptions about industrial price sensitivity and demand elasticity, include each of the test period years and beyond. The relevance of the natural gas forecast discussion to the current test period is that the effects of lost industrial load today will be exacerbated if LNG-related load develops later than the forecast schedule, or not to the extent projected. Retaining industrial load today by minimizing rate increases is important. That extends to minimizing dollars directed towards the rate smoothing account during this test period.

1.1.1 Please see the response to 1.1 above. Please also see AMPC's response to BCSEA 2.5.

1.2 Please see the response to 1.1 above. Please also see AMPC's response to BCSEA 2.5.

1.3 Table 3-5 of the Application forecasts \$719.9, \$720.4, and \$759.5 million for the F2017-F2019 test years, respectively. These amounts correspond to "Revenue Requirement before transfers to Rate Smoothing Regulatory Account" figures of \$4,679.9, \$4,912.1, and \$5,136.1 million, per Tab 1 of Appendix A to the Application. A 10% change in industrial revenue would therefore typically imply a corresponding change of about 1.5% to total revenue and thereby rates.

As the question suggests, however, due to the rate cap there is no effect on rates in the test period, but rates after the test period would be affected by how the Commission authorizes payments into and from the rate-smoothing account and other regulatory accounts. Also, the circumstances that would affect industrial load in either manner (+/- 10%) would affect other elements of the load forecast as well. Please see BC Hydro's responses to AMPC IR 2.2.1 as an example. AMPC is unable to undertake the full scope of the requested analysis.

1.4 AMPC continues to have the two concerns expressed in its evidence. First, AMPC's evidence pointed out that natural gas production appears linked to successful implantation of a LNG industry in BC. While hopeful that LNG develops as BC Hydro forecasts, AMPC's evidence also expressed concern that it will not do so on the timeline presented. CEABC offers, partially, an alternative interpretation of natural gas production, focussing on natural gas liquids production. AMPC agrees with the premise of the question that liquids production supports natural gas development independent of LNG development. AMPC is not in a position to quantify to what extent one trend may replace the other, and expects that few (public) observers are well-positioned to do so accurately. AMPC continues to expect that LNG export will play a major factor in the future of upstream natural gas development in the medium to long term, recognizing that traditional natural gas markets and natural gas liquids markets constitute current drivers. In short, CEABC's evidence, if accepted, diminishes AMPC's concern, but likely not materially so.

Second, AMPC also notes that increased natural gas production does not necessarily translate into increased electrical sales from BC Hydro. Given the availability of natural gas alternatives at facilities, multiple factors, such as the customer related cost and timing of extending the electric system, the quality of electric service and the specific rates offered, will remain a concern for developers.

**2.0 Reference: Chapter 3 – LOAD FORECAST
Exhibit C9-7, pp. 6, 9, 12
Sales volume**

Regarding AMPC’s concern with BC Hydro’s industrial load forecast, AMPC states: “[It] is concerned that BC Hydro is over-optimistic about the effect that its applied-for and future rate increases will have on industrial sales ... In AMPC’s view BC Hydro and the Commission should be prepared to take steps to maintain sales volumes to existing core industrial loads if the revenue requirements are to be achieved in practice.”

On page 9 of its Evidence AMPC further states: “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.”

On page 12 of its Evidence AMPC further states: “The rate increases facing price-sensitive EITE industries demand that the Commission carefully consider creative [rate] options as they arise.”

- 2.1 Please explain what specific steps or creative options AMPC would like the Commission and BC Hydro to take in order to maintain sales volumes to existing core industrial loads in the context of this RRA.
- 2.1.1 It appears that AMPC is suggesting rate design options for industrial customers to promote certain industries. Please clarify whether these policy decisions should be within the scope of this RRA or whether these issues would be more appropriate addressed in BC Hydro’s upcoming Rate Decision Module 2, where optional rates for all customer classes can be reviewed in a more comprehensive manner.

Response:

2.1 AMPC seeks three steps from the Commission in response to AMPC’s evidence. First, a sustained focus on requiring BC Hydro to find efficiencies by expecting rate cap performance at 2.6%, which, second, can be assisted now during the test period by the Commission minimizing the amounts directed towards the rate smoothing deferral account. Third, the Commission needs to recognize the load retention relationship between creative rate options for industrial customers in other proceedings, and this proceeding’s focus on revenue requirement, rates, and rate-smoothing account collection approvals.

2.1.1 AMPC has not, and is not, suggesting rate design options to promote certain industries.

AMPC’s recommendations apply to industrial load generally. Those that are energy intensive and trade exposed are, by definition, especially vulnerable to the effect of rate increases that continue to exceed the pace of inflation, particularly compared to other rate classes. Energy comprises a significant proportion of their costs, and their revenues are driven by external market prices, meaning energy costs directly affect profitability. All customers are harmed if industrial load is lost and BC Hydro’s costs are spread over the remaining customer base. It is the combination of those two factors that make EITE customers unique and in need of careful consideration in the context of BC Hydro’s load forecast.

AMPC is suggesting the funds approved for collection in the rate-smoothing deferral account in this proceeding will affect the Commission’s ability to give effect to the 2.6% rate increases

targeted by BC Hydro during the last phase of the 10-year rate plan, and should be scrutinized and minimized. If future rate increases exceed that threshold, then AMPC is concerned about load destruction, in a manner inconsistent with the forecast presented in this Application. Additional optional rate options, to leverage the flexibility that industrial operations may present, are an efficient and cost-effective response. Implementation of those options will come in future proceedings, but this record and this proceeding and the associated approvals form the basis for AMPC's concerns. The independent Industrial Electricity Policy Review panel recognized these concerns, and came to the following conclusions:

Low, stable and predictable rates combined with reliable service support economic development. Average Transmission Service rates rose by over 40 per cent between 2006 and 2012 (see Appendix 6). Future increases will place pressure on electricity-intensive industrial customers. BC Hydro's F2012 Fully Allocated Cost of Service study shows both Transmission and LGS >150 kW customers pay slightly more than their costs of service, with revenue/cost ratios of 104% and 106% respectively. (These compare to revenue/cost ratios of 90% for residential customers and 126% for small commercial customers). At this time the residential class of customers does not pay for its costs of service and if future Commission rate design decisions transition rate classes toward 100% revenue to cost ratios, there could be a contribution to economic development from some commercial and industrial class customers.

Industrial customers appear to have a degree of operational flexibility to reduce peak demand. This may provide value to both customers and BC Hydro under the proper circumstances.

Conclusion

Future rate increases may lead some industrial customers to invest in efficiency, but may prove difficult for others to absorb. In those cases, rate increases may lead to decisions to close or reduce production in British Columbia, or move production out of the province.¹

AMPC was an active participant in Module 1 of BC Hydro's Rate Design Application, will likewise participate in Module 2, and in other rate-related proceedings as they arise during the test period. Again, the need for the Commission to be aware of the need for creative rate options is relevant to the Commission's general approach in this proceeding towards the need to find efficiencies, and willingness to direct amounts towards the rate smoothing deferral account.

¹ Industrial Electricity Policy Review Task Force Final Report, October 31, 2013, page. 23.

**3.0 Reference: Chapter 3 – LOAD FORECAST
Exhibit C9-7, pp. 11, 12, 13
Requests and recommendations of the Commission**

AMPC makes the following requests or recommendations of the Commission in its Evidence:

- (i) “AMPC recognizes that BC Hydro’s future holds significant cost challenges: continued reliable supply, infrastructure maintenance costs, new capital spending, and paying down its significant liabilities, including deferral account balances and the fixed 5% deferral account rate rider (‘DARR’). In addition, there are transfers to the shareholder by way of dividend payments, water rentals and tax revenues. While these latter costs are outside of the Commission’s jurisdiction to change, AMPC recommends that the Commission’s decisions going forward clearly identify the role that these costs play in rates, and direct BC Hydro to carefully take into account the price sensitivity and competitive risks of EITEs as the 10-year rate plan winds down. Specific items include regular rate design updates to ensure balanced revenue to cost ratios, creative new rate options, and Commission recognition of the value of rate caps in driving BC Hydro to find efficiencies.” (page 11 – emphasis added)
- (ii) “AMPC’s written evidence in BC Hydro’s F2012-F2014 Revenue Requirement proceeding recommended that the Commission establish the fixed rate increases recommended by the BC Hydro Review Panel, and leave it to BC Hydro to identify the necessary efficiencies to achieve that level of performance. This was, in effect, a form of ‘top down’, rate cap style regulation. The Review Panel’s detailed analysis made clear that limiting rate increases to the levels proposed was possible, and there was no need to establish a ‘bottom up’ calculation of appropriate rates and return. AMPC, in as many words, proposed that the Commission carry the torch on from the Review Panel.

Five years later, BC Hydro proposes to continue a similar approach with its targeted rate increases of 2.6% during the final years of the 10-year rate plan. AMPC supports continuing a ‘capped’ approach that drives BC Hydro to find efficiencies in its operations, and recommends that the Commission support BC Hydro in such efforts. The Commission can do so here by recognizing industrial customers’ sensitivity to continued rate increases.” (pages 11-12 – emphasis added)
- (iii) “To be clear, if BC Hydro finds it has insufficient revenues to meet its infrastructure investment and operational needs as it approaches F2020, the Commission should insist on limiting rate increases to 2.6% as currently planned, to reduce the risk of industrial demand destruction.” (page 12 – emphasis added)
- (iv) “While some of these options are outside the Commission’s jurisdiction and imply policy or legislative changes by government, the Commission’s decision in this application should provide stakeholders with a clear menu of policy options. AMPC’s concern is that these choices must not assume that industrial rate increases can continue unabated.” (page 12 – emphasis added)
- (v) “The Commission should also clearly identify and quantify the constraints imposed by shareholder-driven costs: dividend payments, water rentals, taxes and amortization of debt. Ultimately, any suggestion that rates beyond the rate caps are necessary for BC Hydro to finance and maintain the reliability of

generation and transmission infrastructure in BC must be weighed against the risk of industrial demand destruction.” (page 13 – emphasis added)

- 3.1 For each of the points above, please explain how the issue identified impacts rates in (i) each year of the test period; and/or (ii) years beyond the test period.
- 3.2 For each of the requests made of the Commission in each of the points above, please explain in detail the specific actions that AMPC would like to see the Commission take as part of the RRA Decision. Please address the legislative constraints set out in Chapter 2 of the RRA where applicable and clearly identify where policy or legislative changes by government would be necessary in order for the Commission to fulfill AMPC’s requests.

Response:

3.1 Please see AMPC’s elaboration below:

(i)

- “[Identification of] the role that [transfers to the shareholder] play in rates” is a recommendation to the Commission concerning its decision in this proceeding, as well as future proceedings.
- The request for a “direction to BC Hydro to carefully take into account the price sensitivity and competitive risks of EITEs as the 10-year rate plan winds down” is a recommendation to the Commission for this proceeding that would affect rates in the next test period, specifically as it relates to the 2.6% rate increases targeted by BC Hydro and that were the subject of both BC Hydro’s Application and AMPC’s IRs in this proceeding. Specific aspects of the Commission’s direction include details like those discussed in AMPC’s response to BCSEA IRs 2.2, 2.3, 2.3.1 and CEC IR 9.2 concerning improved elasticity assumptions.

(ii) and (iii)

- The recommendations for the Commission to “[recognize] industrial customers’ sensitivity to continued rate increases” and “insist on limiting rate increases to 2.6% as currently planned” reflect:

(a) the same concern discussed in the second bullet in (i) immediately above, and

(b) a general concern that the Commission insist in this proceeding that BC Hydro continue find further efficiencies and, on that basis, limit the scope of funds approved for transfer into the rate-smoothing deferral account. For the reasons expressed at various points during this proceeding, AMPC has not invested the resources necessary to identify how to do so from a “bottom up” perspective, but, consistent with its evidence filed in the 2012-2014 RRA and other ratemaking approaches applied by this Commission and others, considers that a “top-down” approach can be effective. The degree to which BC Hydro’s Application reflects changes made following the 2012 Deputy Ministers’ Report is proof.

(iv) and (v)

- The recommendations to “provide stakeholders with a clear menu of policy options” and “identify and quantify the constraints imposed by shareholder-driven costs” reflect the concern discussed in the first bullet in the response to (i) above. In this proceeding the

Commission will have to approve or reject amounts directed to the rate-smoothing account, in addition to the capped rate increases. Some of the funds will be attributable to policy choices that are beyond the discretion of either the Commission or BC Hydro.

An example comparable to what AMPC recommended in 2012 is the decision to forego future gas-fired generation in pursuit of a clean energy objective that exceeds the 93% established by the *Clean Energy Act*. As gas-fired generation is typically the most economical incremental generation option worldwide presently, there is a dollar impact to this policy choice. AMPC is not requesting the Commission to purport to select a different direction or to recommend other policies, but rather issue a decision that lets stakeholders understand what the costs of these types of policy choices are. As AMPC has expressed in other venues, the cost of these policy choices can go unrecognized and lead to unintended outcomes.² The Commission has a role to play in making that analysis accessible. The Commission's analysis should consider and present each program's cost-effectiveness, particularly given the context of rate caps (and minimized rate-smoothing transfers) which creates a zero sum game among the various policy options. Examples are the electrification of the natural gas sector and other industrial DSM measures.

3.2 Please see the responses to 3.1 above, particularly (iv) and (v). AMPC's requests were drafted in recognition of the legislative constraints on the Commission. As elaborated-upon above, no legislative changes would be required for the Commission to give effect to AMPC's recommendations. Part of the Commission's role is to present information and analysis clearly that allows government and the public to understand the effects of policy choices, so as to potentially advocate for or against policy changes.

² <https://sencanada.ca/en/Content/Sen/committee/421/enev/08ev-52589-e>.