

BRITISH COLUMBIA UTILITIES COMMISSION

INQUIRY RESPECTING SITE C

**ASSOCIATION OF MAJOR POWER CUSTOMERS OF BC
SUBMISSION ON THE PANEL'S PRELIMINARY REPORT**

October 11, 2017

British Columbia Utilities Commission
Association of Major Power Customers of BC (“AMPC”)
Submission on Panel’s Preliminary Report in the Inquiry Respecting Site C

I. INTRODUCTION

1. AMPC is a longstanding industry association that represents major resource-based industrial operators in BC active in the forestry, pulp and paper, mining, electrochemical, and petrochemical industries, in matters of electricity regulation. AMPC members’ electricity consumption represents approximately 20% of the electrical energy load in BC.
2. AMPC members reflect energy intensive and trade-exposed (“EITE”) industries, and provide many natural resources and industrial sector jobs throughout BC. As the largest and most price-sensitive electricity consumers in the province of BC, they are disproportionately economically affected by changes to electricity rates. AMPC’s mandate is to represent its members’ interests concerning BC electricity policy issues and decisions, notably their access to reliable and secure electric power at competitive, fair, and efficient rates.
3. In a reversal of circumstances that previously facilitated economic development, recent BC Hydro rate increases have taken BC’s industrial electricity rates from some of the least expensive in the country to a level that exceeds most other Canadian jurisdictions. This threatens existing and future industrial customers, along with the competitiveness and health of the BC economy. As a result, the size and timing of any cost recovery expected from ratepayers of a project as large as Site C could have a major adverse effect on AMPC members’ operations, and the economy in general.
4. At this stage, AMPC continues to take no position on the question of whether to proceed with, delay, or terminate the Site C Project, or the estimated costs of these important decisions facing the shareholder of BC Hydro. The Commission’s Preliminary Report, and the quantity of BC Hydro responses filed in response to Panel inquiries during the past week make clear that more information is required.
5. The Deloitte reports offer a significant and helpful perspective in the key areas of load forecasting approaches and risks, price elasticity and revenue risks. As expressed elsewhere, AMPC continues to support long term rate forecasts and “top down” incentive regulation to minimize future service costs and rate increases. AMPC accordingly supports using the results of Deloitte’s analysis in near-term electricity policy and decision-making.
6. Whatever the Commission’s ultimate conclusions on the Project, it must carefully consider what amount of Project costs should be recovered, from whom, and over what timeframe. The decision to proceed, delay, or stop work on Site C clearly has the potential to cause a major increase in rates paid by all customers at some point. Such rate increases would seriously affect whether some AMPC members’ businesses can continue to operate and be viable.
7. Ultimately, AMPC submits that the Commission should recommend the option that provides the lowest cost source of reliable power compatible with legislated energy policy objectives and public interest criteria. The Commission must also ensure that all ratepayers, particularly those vulnerable to rate shock (like EITE industrial businesses), can remain competitive in BC.
8. In this submission, AMPC specifically responds to Commission invitations from the Preliminary Report to comment on demand elasticity, industrial load forecast, load curtailment, and interruptible rates. AMPC also addresses potential ratepayer cost responsibility for sunk and termination costs in the event the Project does not proceed.

9. As a result, AMPC submits that the Commission should:
- Maintain stable long-term rates to facilitate economic stability and load certainty;
 - Recognize the opportunity for BC Hydro to better manage its competitiveness and load forecast risks by accessing capacity resources from industrial customers through permanent programs, and implementing interruptible rates.
 - Recommend that the shareholder bear the costs of any cancellation, delay, or imprudent spending, as informed by future processes;

10. AMPC elaborates on these points below.

II. BACKGROUND TO AMPC'S SUBMISSIONS

11. In accordance with the Inquiry's procedural schedule, AMPC filed a submission on August 30, 2017 that provided information relevant to the third issue of the Site C Project Inquiry's Terms of Reference: "*What are the mechanisms available to recover any costs associated with suspending or terminating the project?*"
12. At that time, AMPC took no position about whether the Site C Project ("**Project**") ought to proceed. Instead, AMPC documented the declining competitiveness of BC Hydro's industrial rates, and provided industrial customers' perspective on the factors the Commission should consider when determining how to recover Site C costs from ratepayers, regardless of whether the Project proceeds, is suspended, or cancelled.
13. AMPC's submission focused on three issues: (i) Site C Project costs to date, including significant potential cost overruns; (ii) the need to mitigate uncompetitive electricity rate increases that disproportionately affect industrial customers like AMPC's members; and (iii) concerns about the effect of Site C Project costs on long-term electricity rates.¹ It made the following recommendations to the Panel:

5. In short, to minimize the harm to BC's competitive environment, the Commission should phase in all Site C costs to be recovered from ratepayers (whether attributable to project cancellation or placing the project in service) slowly and carefully. In particular, the Commission should continue the pace of the "10-Year Rate Plan" previously established by government and in place at the moment, even though the 10-Year Rate Plan does not account for Site C costs. As AMPC has argued in recent Commission proceedings, that means ensuring that BC Hydro's annual rate increases beyond fiscal 2019 are limited to no more than the 2.6% that industry is planning for.

6. Doing so will help keep BC electricity rates competitive relative to other jurisdictions, for both existing businesses and new industrial investment. In contrast, if electricity rates increase by more than 2.6%, that heightens the risk of destroying demand, i.e., existing industrial customers will scale or shut down operations, or even transfer production to other jurisdictions. In turn, these consequences would negatively affect jobs in BC, as well as all BC Hydro ratepayers, who would then have to bear a greater proportion of BC Hydro costs.²

14. Further to the Preliminary Report that the Inquiry Panel released on September 20, 2017, AMPC now provides the Commission with its further submissions on that report.

¹ Ex. F81-1.

² Ex. F81-1, paras. 4-5.

III. AMPC SUBMISSIONS ON THE PANEL'S PRELIMINARY REPORT

A. AMPC Maintains No Position Regarding Whether Site C Should Proceed

15. AMPC's general position is that the Commission should recommend the lowest cost source of reliable power that meets the public interest and legislated policy objectives. When this Commission considered whether to grant Site C an Energy Project Certificate nearly 35 years ago, it focussed on the "significant" cost consequences of overbuilding, weighing them against the risks of undersupply:

In light of continuing uncertainties regarding both demand and supply, the Commission concludes that it is unclear when a new source of electrical energy will be needed...

While the Commission recognizes that undersupply can impose serious consequences and should be avoided if at all possible, the Commission also recognizes that overbuilding imposes significant economic costs, particularly in light of the export market conditions currently forecast to prevail over the next decade.³

16. The Commission must undertake the same analysis again, but now must also take into account the impact of a potential further \$3 billion in sunk costs and reclamation obligations if the Project does not proceed.
17. As the Commission's Preliminary Report identified, the gaps between the information filed by BC Hydro and Deloitte prevent a proper comparison of the unit energy cost ("UEC") of Site C and alternative generation portfolios. AMPC accordingly concurs with the Commission's preliminary finding that "the assumptions underlying the derivation of both UECs are not well documented enough to be able to make any finding concerning: the alternative profile proposed is indeed the least cost of all possible alternative portfolios; and the unit energy cost of either Site C or the alternative portfolio."⁴ It is important that UEC comparisons each properly weight capacity and dispatchability, for example.
18. The scope of this Inquiry is vast. Its conclusions will rely on content that in past years would have been tested in Long Term Acquisition Program, Integrated Resource Plan ("IRP"), and Certificate of Public Convenience and Necessity ("CPCN") proceedings before the Commission. The broad scope, highly expedited timing, and resource constraints generally, preclude independent AMPC conclusions concerning Site C's UEC relative to Deloitte's Alternative Profile. However, AMPC appreciates Deloitte's efforts and the Commission's detailed analysis of these central issues. AMPC responds directly to the following issues: price elasticity, load forecast, rate impacts, alternative rate options, and BC Hydro's recovery of Site C Project costs.

B. Price Elasticity Concerns and Load Forecast Issues

19. In its Preliminary Report, the Panel canvassed concerns with BC Hydro's approach to load forecasting and demand elasticity, and specifically "invite[d] submissions from other parties to assist the Panel in assessing the appropriateness of the assumptions related to price elasticity and future rate increases."⁵
20. As a starting point, AMPC agrees with the three flaws that Deloitte identified in BC Hydro's price elasticity assumptions: BC Hydro's use of a single elasticity factor of -0.05, BC Hydro's failure to

³ B.C. Hydro Site C Report, BCUC, May 3, 1983, p. 8.

⁴ Preliminary Report, p. 78.

⁵ Preliminary Report, p. 64.

distinguish between short-run and long-run elasticities, and BC Hydro's faulty assumption that price elasticity of demand is constant across all sectors.⁶

21. It is no longer appropriate to use a single price elasticity factor of -0.05 across all customer classes and all time periods, that fails to take into account the different price sensitivities of different customer classes and the cumulative impacts of previous rate increases. AMPC filed Evidence and Final Argument on these issues in the BC Hydro F2017-F2019 Revenue Requirement Application ("RRA"), and the Commission engaged with these same issues in the Key Findings it released in the RRA proceeding. BC Hydro has made further submissions in recent days through the information request ("IR") process.
22. It is well known that EITE industrials have a much higher price elasticity than other classes, and that cumulative rate increases have a threshold effect with no recovery for industrial closures. The cumulative threshold effect is particularly important during the low point of commodity cycles when large loads and revenues may be permanently lost when they might have survived at lower rate levels to benefit from the next commodity cycle. AMPC is also concerned that the use of a low "one size fits all" factor may over-credit utility funded energy conservation programs, where identified savings may actually be the result of price sensitivities that are greater than assumed.
23. AMPC's Evidence and Final Argument in the RRA proceeding criticized the common demand elasticity factor that BC Hydro uses across all of its rate classes as inappropriate and outdated for the industrial rate class. These concerns are directly relevant now. In that proceeding, AMPC stated:

31. AMPC's Evidence disputes the common demand elasticity factor of -0.05 that BC Hydro used for each of residential, commercial, light industrial, and large industrial rate classes. BC Hydro did not undertake any individual sector elasticity studies, and a common demand elasticity factor results in a "one-size fits all" for all rate classes that falls far short of representing industrial customers' higher degree of price sensitivity. It is simply inadequate for industrial customers.

32. This stronger price sensitivity is well-recognized. In its 2015 BC Hydro Rate Design Application ("RDA") Reasons for Decision, the Commission repeated its finding from the 2013 Residential Inclining Block Report: "Large consumers have higher elasticity (higher average response to higher prices) than smaller consumers." BC Hydro also used a -0.16 price elasticity factor for industrial customers in its F2010 Demand-Side Management Milestone Evaluation Summary Report" (a figure AMPC challenged as unduly limited in cross-examination during the RDA oral hearing, in passing).

33. BC Hydro stated in its Rebuttal Evidence that the -0.16 price elasticity from the 2013 Residential Inclining Block Report "cannot be compared on an 'apples to apples' basis" to the -0.05 price elasticity estimate used in this application, and "could double count price responsiveness effects". BC Hydro's response is no reason to prefer the coarse and equally stale -0.05 figure, which dates from before 2008 and is even less precise than -0.16.

34. BC Hydro's concern about "double counting" price responsiveness effects by using an elasticity factor for industrial customers is also, confusingly, a criticism that equally applies to its current methods. Earlier in the same document, BC Hydro states "AMPC is correct that BC Hydro applies a common elasticity factor of -0.05 to all customer classes. However, this is only one means by which price elasticity is applied in the context of industrial customers."

⁶ Preliminary Report, p. 62.

*35. AMPC's point is not that -0.16 must be used, it is that -0.05 should **not** be used, and a factor clearly applicable to industrial customers should be substituted. The only other example the Commission has is the -0.16 offered by BC Hydro in earlier times.⁷*

24. Deloitte's recent findings confirm AMPC's conclusions.⁸ Indeed, BC Hydro's October 3 response to BC Hydro IR 2.19.0 defends the -0.16 factor as empirically applicable to Transmission Service Rate customers.⁹
25. AMPC also provided detailed submissions in the RRA on BC Hydro's demonstrated pattern of over-forecasting industrial load.¹⁰ Then, as now, BC Hydro argued that despite sharing common methods, its current forecast can be distinguished from past forecasts by idiosyncratic factors.
26. However, BC Hydro's composite methodology (including third-party subscription sources, commodity trends, and Key Account Manager input),¹¹ should still be modified by an elasticity factor calibrated to industrial customers' higher degree of price sensitivity. BC Hydro fails to recognize that its industrial load forecasting model does not properly account for the risk that new customer requests for service may not fully materialize.
27. As a result, AMPC firmly shares the Commission's conclusion that an effective forecast is needed, "to better inform a decision related to the trade-offs of erring on one side or the other,"¹² and urges the adoption of a more conservative elasticity factor.

C. Alternative Rate Options Can Manage Rate Increases and Avoid Demand Destruction

28. Regardless of whether the Site C Project proceeds, is suspended, or terminated, the costs of the Project will have rate impacts for all classes of customers. AMPC's major concern remains the loss of competitive rates in BC.
29. Ratepayers have faced recent average rate increases of 8% in F2012, 3.91% in each of F2013 and F2014, 9.0% in F2015, and 6% in F2016. In the RRA, BC Hydro has sought approval of increases of 4.0%, 3.5%, and 3.0% in each of F2017, F2018, and F2019.¹³
30. AMPC includes a graphical comparison of some of the data AMPC presented in its RRA submission and August 30 submission. It shows the loss of any rate advantage relative to the rest of the country by comparing large power customer rates (pre-tax) across major cities in Canada. Again, it is based on the data provided by Hydro Quebec's 2017 survey of electricity rates across Canada.

⁷ RRA, AMPC Final Argument. Footnotes omitted.

⁸ Preliminary Report, p. 62.

⁹ Ex. F1-6, IR 2.19.0, p. 2, pdf p. 43, Preliminary Report p. 62, citing Deloitte Report.

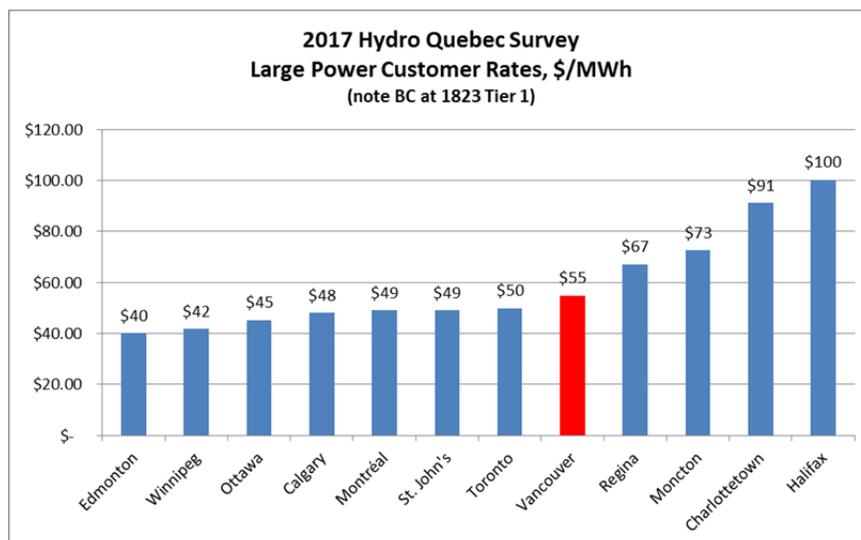
¹⁰ RRA, AMPC Final Argument, citing Ex. B-14-2, BC Hydro Response to BCUC IR 2.197.3.

¹¹ Ex. F1-1, Appendix H, p. 11, referencing BC Hydro's RRA ex. B-10 response to AMPC IR 1.9.1.

¹² Preliminary Report, p. 54.

¹³ Commission Order G-77-12A, BC Government 10-Year Rates Plan, and RRA, Ex. B1-1.

Table 1



31. In spite of recommendations from the Industrial Electricity Policy Review (“IEPR”) and extensive discussions, there are still no permanent rate options to mitigate the recent rate increases or to restore the competitive position of BC. AMPC recognizes the temporary Load Curtailment and Freshet Pilots – but to date, there is no confirmation that these programs will be there in the future. The province’s planned two-year phase out of provincial sales tax on electricity purchases is appreciated and important, but does not affect BC’s ranking relative to other jurisdictions. On its own, that change will not displace concerns about the uncompetitiveness of BC Hydro’s industrial rates.

32. New rate options are required to manage the effects of continued rate increases and avoid demand destruction. The threat is real, and recent plant shutdowns have caught all parties by surprise. In its RRA Evidence, AMPC described unexpected “stepwise changes in demand.”¹⁴ BC Hydro’s discussion in Appendix H of its submission illustrates this risk,¹⁵ which is partially reproduced in the Preliminary Report:

These large declines in the industrial load between fiscal 2006 to fiscal 2010 are attributed to large discrete customer load attrition events. Specific facility closures included four pulp mills... Most of these closures were largely caused by poor market conditions resulting from the global recession. The high Canadian dollar, which is shown in Figure H-4 exacerbated the declining market conditions... Over fiscal 2016 and fiscal 2017, Howe Sound Pulp and Paper closed a paper line due to low water levels and negative market outlook. As with the earlier closures of other pulp and paper mills, this closure was not foreseen by industry experts. Until that point the Large Industrial sector was recovering in mining and the oil and gas sector following the declines between fiscal 2007 to fiscal 2010.¹⁶ [emphasis added]

33. In this regard, in Appendix A to the Panel’s Preliminary Report, the Panel directly invites parties to discuss potential load curtailment and interruptible rate options. Specifically, the Panel made the following comments concerning alternative energy and capacity sources, and capacity focused DSM and industrial load curtailment:

¹⁴ RRA, Ex. C9-7, AMPC Evidence, Q/A 7, pp. 8-9.

¹⁵ Ex. F1-1, Appendix H, p. 46.

¹⁶ Preliminary Report, p. 58.

BC Hydro identified in the 2013 IRP that there was 382 MW of expected capacity savings from industrial load curtailment, and 193 MW of expected capacity from capacity focused programs. BC Hydro is now half way through the F2017 – F2019 funding request of \$38 million to understand the dependability/reliability of capacity focused programs.

Given this, the Panel requests BC Hydro to explain why it has only identified capacity DSM savings for the industrial sector.

The Panel therefore seeks input from BC Hydro and other parties regarding what level of incremental capacity curtailment would be reasonable to expect from industrial, residential and commercial customers through capacity focused DSM programs at: (i) F2019, (ii) F2023 and (iii) F2027 at different cost levels (for example, \$10/kW-year; \$30/kW-year, etc..). Please include consideration of time of use and interruptible rate structures.¹⁷

34. Interruptible rates, in the form of load curtailment and otherwise, have been of high interest to AMPC members for years, given AMPC members' familiarity with these options in other jurisdictions.

Load Curtailment

35. BC Hydro explains that it conducted a proof-of-concept trial in F2015 that confirmed the capability for industrial large customers to curtail for relatively long periods of time based on BC Hydro's "unique" capacity need (i.e., 16-hours per day, up to 36-days).¹⁸ BC Hydro then proceeded with a broader pilot program and tested various curtailment scenarios between November 2015 through March 2016 (year 1), then used the year 1 data to inform year 2.¹⁹ BC Hydro described the first year of the load curtailment pilot as "successful", indicating that it could "provide system-wide capacity benefits to BC Hydro."²⁰
36. However, BC Hydro concluded that only approximately 85MW of curtailment at \$75/kW-yr could be available as a generation capacity alternative,²¹ including it as a "low-cost but small-size capacity resource required in all portfolios."²²
37. In response to the Panel's request for information on why load curtailment had been limited to industrial customers to date, BC Hydro stated that, "BC Hydro and large industrial customers have had more experience with load curtailment, it involved a small group of customers and there was less need to test technology."²³
38. In AMPC's view, the question is not why load curtailment has been limited to industrial customers, but rather, why the program has not been broadened to a larger set of industrial customers. AMPC's interest in load curtailment is longstanding. In late 2008, AMPC argued (under the name of the Joint Industry Electricity Steering Committee, or "JIESC") that a 400 MW load curtailment program was *too small*, and represented a capacity resource that BC Hydro should take greater advantage of, in the manner of other jurisdictions:

¹⁷ Preliminary Report, Appendix A, p. 175.

¹⁸ The provincial government directed BC Hydro to implement a voluntary load curtailment program with industrial customers starting in 2015: see ex. B-9 in the RRA, BC Hydro Response to IR 1.183.1, pdf p. 4840.

¹⁹ RRA, Ex. B-9, BC Hydro Response to IR 1.183.1, pdf p. 4840.

²⁰ *Ibid.*

²¹ Ex. F1-1, Appendix L, p. 16, pdf p. 468.

²² *Ibid.*, p. 3, pdf p. 455.

²³ Ex. F1-11, BC Hydro Response to IR 2.73.0, pp. 104-105.

BC Hydro's system has high winter peaks associated with it. These peaks are currently stressing BC Hydro's resource capabilities principally in terms of capacity and associated energy. The JIESC believes that interruption of industrial, and possibly large commercial loads, that are able and willing to accept interruptions, can go a long way to meeting BC Hydro's peak requirements at a lower cost than traditional sources of peak supply....The JIESC's concern is that BC Hydro is not yet making the most effective use of this resource by limiting its contracted capacity to approximately 400 megawatts largely because of its lack of familiarity with the resource....[I]ncreasing purchases of curtailment rights, and calling on those rights as required could lead to benefits for both industrial customers and for the system as a whole....

Curtailment programs work and are used by other utilities in Canada and the United States. BC Hydro has protocols in place for interrupting customers who have agreed to be curtailed for the last year, has tested those protocols and has the capability of enforcing them. BC Hydro should be comfortable with both the current level of contract curtailment capacity and with the potential for increased curtailments.²⁴

39. AMPC finds itself making the same submission today, even despite the fact that immediate investigation of capacity savings from an interruptible, curtailment-type program was unambiguously recommended by the IEPR Report four years ago.²⁵ The recent pilot has been acknowledged by BC Hydro, AMPC, and the Commission as successful, as highlighted by AMPC in its RRA submissions.²⁶
40. Despite the \$75/kW-year figure suggested by BC Hydro, other sources suggest that load curtailment is both (i) less costly, and (ii) more broadly applicable. First, during the RRA, BC Hydro stated in response to BCUC IR 2.318.1 that the actual cost fell below even the \$57/kW-year figure first estimated – the Preliminary Report has already noted this discrepancy.²⁷
41. Second, as the Preliminary Report notes in its reproduction of the Bakker comments, BC Hydro identified a potential 382 MW of capacity as recently as the 2013 IRP.²⁸ Next, the Deloitte report mentions Hydro Quebec has achieved 1,000 MW of customer supplied capacity.²⁹ On a pro-rated basis, this would be about 245 MW,³⁰ approaching the figure identified in BC Hydro's 2013 IRP discussion.
42. AMPC disputes BC Hydro's assertion of "limited volumes of load that can provide the dependable capacity over the hours when [BC Hydro] most need[s] it."³¹ According to BC Hydro, "a capacity-focused DSM resource would need to curtail for 16-hours for up to 36 days (totaling 576 hours) anytime over the winter and shoulder months (October through March) to give BC Hydro sufficient capacity reliability to defer generation capacity."³²
43. In AMPC's view, BC Hydro has defined the required product far too narrowly, ignoring the ability of other jurisdictions to aggregate and make effective use of blocks of energy that both last for fewer hours and fewer consecutive days. Curtailable load can be a flexible tool to both manage

²⁴ BC Hydro F2009-F2010 RRA, JIESC Final Argument, pp. 22-23.

²⁵ IEPR Task Force Final Report, Recommendation No. 6.12, pp. 30-31, 49 and 70.

²⁶ RRA, AMPC Final Argument, para. 56. Footnotes omitted.

²⁷ RRA, Ex. B-14, BC Hydro Response to BCUC IR 2.318.1, pdf p. 984.

²⁸ Preliminary Report, Appendix A, p. 39, citing Ex. F106-1..

²⁹ Ex. A-9, p. 58.

³⁰ 13,200 GWh/53,635 GWh = 246 MW.

³¹ Ex. F1-1, p. 59.

³² Ex. F1-1, Appendix L, pdf p. 468.

forecast risk as well as system contingencies, e.g., such as a contingency response program with direct load control. BC Hydro has done little to explore it.

44. AMPC also disputes the suggestion in BC Hydro's Appendix M that says industrial load curtailment is "uncertain" (and, again, limited to only 85 MW).³³ AMPC expects that realistic procurement efforts, using less restrictive contract terms, could readily access a capacity resource in the 200-400 MW range. It bears repeating that BC Hydro's most recent pilot was oversubscribed in its first year. Pilot projects also reflect circumstances where little to no investment is contemplated, given program uncertainty. Program certainty, in contrast, may well liberate investments and significantly enhance participation.
45. AMPC therefore submits that the Commission's analysis of any portfolio should recognize the potential for an expanded load curtailment program, given the customer enthusiasm, wide use elsewhere, and success in BC to date. It reflects a low-cost, viable alternative to new generation that still meets provincial environmental objectives.

Other Interruptible Rate Options

46. Similarly, AMPC supports further development of other interruptible rate options in the future. An example would be an extension of the "freshet rate" concept (RS 1892) throughout the full calendar year, while the current energy surplus endures. Non-firm temporary energy surplus sales would transfer the generation deficiency or forecast risk to industrial customers, who can mitigate it through plant design and inventory management, and benefit all ratepayers.
47. Additional interruptible rate options include recognizing that it may not be efficient to plan for the same standard of service to all customers. Customers with large industrial loads, in particular, may be prepared to accept a higher risk of future unserved energy in exchange for price reductions. Those types of rate options would allow BC Hydro to better manage the risk of overbuilding generation, reduce fixed costs, and mitigate rate increases for all customers.

D. Shareholder Recovery of Site C Costs

48. BC Hydro's submission states that in the event that work on the Site C Project is halted and the site reclaimed, all related costs accumulated in regulatory accounts and the additional costs of remediation would have to be "written off", based on the requirements of the accounting rules that BC Hydro follows. On this basis, BC Hydro modifies its calculation of Site C's UEC for comparison purposes (by \$2.6 billion and \$3.75 billion for offsetting sunk, and offsetting sunk plus termination costs, respectively). In response, the Panel requests that BC Hydro comment on the appropriateness of adjustments for sunk and termination costs to the Site C UEC.³⁴
49. Given the *risk* that ratepayers may ultimately be responsible for sunk costs, AMPC supports the Commission's consideration of them when calculating UECs for comparison purposes. This is consistent with BC Hydro's response to the Panel's request.³⁵
50. That said, AMPC opposes the general assumption that all Site C sunk and remediation costs must be recovered from ratepayers, and not the shareholder, in the event that the Project does not proceed. With one exception, none of the Site C costs incurred to date have been tested for prudence in the normal course. Further, the shareholder also gave instructions and authority for the expenditures to proceed without the standard regulatory scrutiny of Project "need". Customers obviously would not derive any benefit from sunk/termination/remediation costs. The

³³ Ex. F1-1, Appendix M, pdf p. 527.

³⁴ Preliminary Report, pp. vii and 86.

³⁵ Ex. F1-5, IR responses 2.28.0 and 2.45.0, pp. 9 and 18/42: "...because the sunk and termination costs will need to be recovered from ratepayers in the event that the Project is terminated...."

shareholder should not shift the Project's risk to ratepayers. Consistent with standard regulatory principles, any imprudent "written off" costs should be to the shareholder's account. The extent of Site C disallowances or cost shifting to the shareholder/taxpayer are determinations, whether by the Commission or government, that should properly come in later processes, and not this proceeding.³⁶ AMPC elaborates below.

BC Hydro's Planned Recovery of Project Costs

51. The costs BC Hydro proposes to recover ("**Discontinued Project Costs**") fall into three categories:

- \$0.5 billion in costs already recorded in the Site C Regulatory Account;
- \$1.6 billion in Project capital costs incurred between the final investment decision at the end of 2014 and the anticipated termination date of December 2017; and
- Additional construction and overhead costs associated with terminating work and remediating the site after December 2017, which is estimated at \$1.0 billion.³⁷

52. None of these costs incurred have been recovered in rates to date. As BC Hydro notes, it is standard for capital costs to begin amortization in rates only when projects go into service. BC Hydro says it is required to immediately write off the \$3.0 billion under the applicable accounting rules. It therefore proposes the following steps:

- *BC Hydro obtains approval to use the Site C Regulatory Account to recover costs from ratepayers.*
- *The estimated costs related to categories 1, 3 and 4 [the above, excepting amounts already in the account] would be deferred to the existing Site C Regulatory Account. Because the costs related to category 2 are already in the account, this deferral would bring the balance of the account to \$3.0 billion.*
- *The balance in the Site C Regulatory Account would continue to attract interest to recognize [BC Hydro's] carrying costs, consistent with the current treatment of the account and standard regulatory practice. BC Hydro forecasts that the account balance, including interest, at the end of fiscal 2019 (i.e., the end of the period covered by the current revenue requirements application before the Commission for review) would be \$3.2 billion (i.e., \$3.0 billion plus \$0.2 billion in interest); and*
- *In BC Hydro's next revenue requirements application, which would relate to years after fiscal 2019, BC Hydro would propose a time period over which the balance in the account would be recovered in rates. Over the course of the recovery period, interest would continue to accrue on the unrecovered balance.³⁸*

Concerns with BC Hydro's Approach

53. BC Hydro does not address whether any of the Site C costs may be disallowed for recovery from ratepayers. Instead, in an explanatory footnote to its submissions, BC Hydro simply states that it must immediately write-off all categories of Discontinued Project Costs, as follows:

³⁶ E.g., consistent with the Panel's comments at p. 120 of the Preliminary Report.

³⁷ Ex. F1-1, BC Hydro Submission dated August 30, 2017 at pp. 67-68.

³⁸ *Ibid.*, pp. 72-73.

BC Hydro is required to follow the Prescribed Standards, pursuant to Government regulation. The Prescribed Standards include the principles of International Financial Reporting Standards [(“IFRS”)], combined with regulatory accounting in accordance with Financial Accounting Standards Board Accounting Standards Codification 980 [(“FASB Standard 980”) Regulated Operations. For further information, please refer to Section 8.12 of BC Hydro’s Fiscal 2017 – Fiscal 2019 Revenue Requirements Application.³⁹

54. However, both IFRS and FASB Accounting Standard 980 are subject to regulatory rate-making principles,⁴⁰ and the Commission’s practice is to scrutinize where and how abandoned project costs should be paid for by ratepayers, whether written-off or expensed. In fact, initial Site C costs were subject to exactly this scrutiny during BC Hydro’s first two rate applications.⁴¹
55. This approach ought to apply to the costs currently in the Site C regulatory account⁴² as well, in addition to any post-FID costs that the Commission might approve (capital, termination, and reclamation). At issue are whether the costs were prudently incurred in a basic sense, and the thornier issue of whether any or all of Site C sunk, termination or reclamation costs ought to be considered prudent, given the shareholder’s decision to avoid a CPCN for the Project.

Testing Costs for Basic Prudence

56. Already incurred costs should be scrutinized for basic prudence, at minimum. By this, AMPC refers to staffing, procurement, contract administration, avoidance of overruns, standard risk management, etc. An important element of utility regulation is that the shareholder be allowed to recover from ratepayers only those costs necessarily expended to provide service.⁴³
57. To the extent that BC Hydro’s position assumes that costs would not be tested for prudence, ratepayers would effectively be indemnifying BC Hydro for all private and social costs imposed in connection with Site C construction, contrary to well-established rate making principles.⁴⁴

Recovering Costs Without a CPCN

58. Beyond “basic” prudence, the larger consideration is whether *any* sunk costs should be recoverable from ratepayers if the Project is cancelled, because the Project proceeded without normal testing of its “need”. In introductory comments to its reasons in BC Hydro’s first ever rate case, this Commission noted the CPCN as one of two “powerful controls” to protect consumers:

It is obvious that the control, both on levels of capital expenditure and on the nature and amount of allowable expenses, constitute an effective discipline towards running an efficient operation where the entity is investor-owned. If the company fails in either of these then the equity shareholders bear the cost.⁴⁵

³⁹ Ex. F1-1, p. 72, footnote 44.

⁴⁰ Section 8.12 of BC Hydro’s RRA Application simply references IFRS and the International Accounting Standards Board Standards for Regulated Operations, providing no further explanation. Before expensing the cost, the standards require consideration of whether and how much future revenue can be expected from the asset.

⁴¹ BCUC, Re British Columbia Hydro And Power Authority Applications for Rate Relief, Feb. 28, 1983, p. 116; BCUC, Re British Columbia Hydro And Power Authority Applications for Rate Relief, May 9, 1986, pp. 23-24.

⁴² The BCUC ordered the creation of the Site C “regulatory asset” with Order G-143-06, expressly noting in its reasons that its creation “will not preclude the Parties from raising prudency issues under the UCA with respect to Site C expenditures incurred or to be incurred” (p. 10). Orders G-91-09, G-77-12A and F-48-14 added additional years to the account’s scope following LTAP and RRA proceedings. Of note, \$41.0 million in non-capital costs have already been accepted as being in the public interest in 2009.

⁴³ See, e.g., *ATCO Gas and Pipelines Ltd. v. Alberta (Utilities Commission)*, 2015 SCC 45 at 61, and page 39 of the BCUC’s “Participants” Guide”.

⁴⁴ *Ibid* at 114.

⁴⁵ BCUC, Re British Columbia Hydro and Power Authority Applications for Rate Relief, Feb. 28, 1983, pp. 2-3.

59. The need for regulatory approval provides shareholders with an incentive to avoid undue risks associated with over or early building of capital projects, which might otherwise occur in a monopoly situation lacking normal competitive market pressures. Allowing a monopoly shareholder to recover the sunk costs of a project abandoned before it could provide the intended service is generally inconsistent with what Bonbright describes as the “efficiency-incentive” function of rates.⁴⁶
60. Through section 7(1)(d) of the *Clean Energy Act*, government – who is the shareholder – bypassed the CPCN requirement that section 45 of the *Utilities Commission Act* would typically impose. The shareholder, and not ratepayers, should bear the consequences of the associated risk, in the event of the termination or suspension of the project.
61. The IEPR Final Report foreshadowed these concerns. It noted that government’s use of legislative authority to achieve provincial public policy objectives has, in this case and others, transferred both risks and costs from the shareholder to ratepayers, and recommended that government separate its role as shareholder from its role of policy maker:

The use of directives and legislation to determine energy resource and technology choices means decisions may not be supported with the information that would normally accompany an evidence-based process. This creates a risk that a growing portion of BC Hydro’s revenue requirements is no longer based on least cost planning.

*As BC Hydro’s shareholder, the government has the ability to insulate itself from risks that shareholders of an investor owned utility would bear, and also transfer costs from the taxpayer to the ratepayer.*⁴⁷

...

*Government’s role to determine the provincial public interest should be separated from its role as shareholder of BC Hydro. Principles could provide government with guidance on what costs should be allocated to ratepayers, and those that should be allocated to government as shareholder. Public scrutiny of BC Hydro’s expenditures by the British Columbia Utilities Commission (Commission) will increase public acceptability of the results.*⁴⁸

62. AMPC accordingly submits that the Commission’s Final Report in this Inquiry should draw government’s attention to the cost risks that the blurred lines between the two roles impose on ratepayers, and to price-sensitive EITE customers in particular. An unambiguous shareholder assumption of Site C sunk, termination and reclamation costs, should they materialize, would be appropriate in the circumstances.
63. In the absence of government action, it may fall to the Commission to assess whether it can and/or should require BC Hydro’s shareholder to bear some or all such Site C costs. Again, that step is yet to come. AMPC notes that regulators have denied some, or all, of the costs associated with projects abandoned before they received regulatory approval, or were completed. The key question is generally whether ratepayers or shareholders ought to bear the business risk in the circumstances (one that shareholders are compensated for).⁴⁹

⁴⁶ *Principles of Public Utility Rates* at 112, 205.

⁴⁷ IEPR Final Report, p. 16.

⁴⁸ *Ibid* at 24.

⁴⁹ Canada Energy Law Service: Federal (loose-leaf, 2012), pp. 10-1064.14-15, paras. 120-121, citing Trans Québec & Maritimes Pipeline Inc. Toll Application, March 1984 Reasons for Decision at 8-9, and Reasons for Decision RH-2-97, Phase 1, p. 20, respectively. Also see the dissent at p. 20 of Reasons for Decision RH-4-85.

IV. CONCLUSION

64. Given the various constraints identified earlier, AMPC takes no position on whether the Project should be completed, suspended, or terminated.
65. However, AMPC has endeavoured to respond to the Commission's invitation to comment from industrial customers' perspective on rate impacts, price elasticity and load forecasting, and load curtailment. These issues were addressed by AMPC, other interveners, and the hearing Panel in the RRA proceeding, and more recently, were recognized and given serious attention by the Deloitte reports and the Preliminary Report.
66. The Commission's assessment of BC Hydro's load forecast should recognize that the common demand elasticity factor that BC Hydro uses for all of its rate classes is not appropriate to BC industrial customers. There is no question that industrial customers are more price sensitive than other BC customer classes, and the load forecast should better reflect that reality with a more conservative elasticity factor.
67. The Commission's assessment of BC Hydro's generation options must also recognize that innovative rate options like load curtailment offer a low-cost and "road-tested" alternative to new generation capacity, as well as competitive benefits to some industrial customers.
68. Furthermore, in relation to the potential recovery of any Site C sunk, termination and reclamation costs where the Project does not proceed, AMPC recommends that the Panel be clear that these costs would have to be tested for prudence in the normal course, and in fact are best assumed by the shareholder because they would arise where ratepayers did not have the protection of a Commission process in a monopoly environment.
69. In closing, while AMPC has limited its comments in these submissions to specific issues arising in the Preliminary Report, it retains the concerns expressed in its initial submission. The Commission must carefully manage the recovery of any Site C costs from ratepayers, irrespective of whether the Project proceeds. Industrial rate customers need to be able to access reliable, secure supply at competitive rates, without facing further, cumulative price increases that disproportionately affect them and heighten the risk of demand destruction, to the detriment of all BC Hydro ratepayers. BC's electricity rates are becoming increasingly uncompetitive, and are jeopardizing the viability of existing businesses and future investment in the province.
70. To this end, AMPC maintains its recommendation that future rate increases not exceed the annual 2.6% increases required in the near-term by the 10-Year Rate Plan. Demand destruction and rate shock are real and tangible risks in the current rate environment. Costs must be properly recovered over the long-term, in the public interest, and in line with standard utility regulation principles.

All of which is respectfully submitted this 11th day of October, 2017.