

February 13, 2020

Alberta Utilities Commission
1400, 600 Third Avenue SW
Calgary AB T2P 0G5

Attention: Trevor Richards

Dear Mr. Richards,

Re: Industrial Power Consumers Association of Alberta (“IPCAA”) comments on Alberta Utilities Commission (“AUC”) Bulletin 2020-01 – Exploring market concerns and tariff issues related to self-supply and export reform (“Bulletin 2020-01”)

IPCAA provides the following comments in response to Bulletin 2020-01, issued by the AUC on January 9th, 2020.

Question 1:

Please provide your views on the concerns expressed by Capital Power about the impact of unlimited self-supply and export on the energy-only market. Please comment on whether, or to what degree, such concerns may be addressed through changes to market rules or to existing transmission and distribution tariffs.

IPCAA Response:

In its submission in response to AUC Bulletin 2019-16, Capital Power Corporation (“Capital Power”) appears concerned that increased self-supply and export decreases competition in Alberta’s Energy-Only Market (“EOM”). IPCAA disagrees with this premise. Self-supply is competition for Alberta’s transmission-connected generators, and the option to self-supply and export excess generation can enhance competition in Alberta.

In its submission, Capital Power stated: *“For the proper formation of price signals in real-time and over a longer term, it is necessary that all available supply be required to submit energy offers.”* IPCAA submits that while it is an ideal notion that all supply submits energy offers, in reality, there are many types of suppliers not offering into the Alberta electricity market that are still competing. These include:

- Micro-generation;
- Community generation;
- Generators less than 5 MW;
- Demand Response (DR) as negative supply;
- Renewable generators, who have their offer volumes capped at their real-time supply volume; and
- Co-generation.

The AESO, in its Responses to AUC November 29, 2019 Information Requests in the Distribution System Inquiry, noted that distribution-connected generation (“DCG”) less than 5 MW do not have to offer into the electricity market, but *“Regardless of whether the energy is offered into the bottom of the supply curve or included in system demand, the equilibrium price impact is the same.”*¹

Behind-the-Fence (“BTF”) generators can choose to offer gross or net for dispatch and both options are being used in Alberta. The decision to use gross or net is made by the market participant based on their specific circumstances. While BTF generators can offer gross or net, it is common practice to offer on a gross basis with the first \$0/MWh block equal to at least their on-site load. In either case, the settlement is based on the net metered amount to the grid. In addition, transmission-connected generators, like Capital Power, have site load to serve and have always been net-metered. These generators compete on a net-basis.

Price formation comes from an intersection of the offer price of supply at a demand level. Demand is half of the market construct and at its simplest is negative supply. Consumers make a price-dependent choice to consume, if they value that consumption at a higher price. In the Alberta EOM, consumers are not required to submit an energy offer to consume.

In its submission, Capital Power stated: *“Allowing an exemption for some energy reduces the amount of supply competing to be dispatched.”* As stated above, there are several types of resources that are not directly visible in the marketplace. Ultimately, it is the marginal resources that are competing to be dispatched. The competition is on the margin.

Capital Power also states: *“Further, an expanded amount of self-supply and export reduces market visibility of both available supply and load to be served inhibiting price discovery.”* This statement does not hold true. BTF generators are ultimately selling their net export to the market. In fact, most of these generators are offering their gross power into the market and are settled net by the AESO.

Section 4(2) (b) of the HEEA states that regarding an Industrial System Designation (“ISD”), *“the designation must support the efficient exchange, with the **interconnected electric system**, of electric energy that is in excess of the system’s own requirements”*. Most of the approximately 5,000 MW of self-supply generation does offer at gross into the market with a \$0/MWh offer block for its load. Ultimately, the net-export is available for price formulation. Any generation spare to a BTF load (the net export) should have a FEOC obligation to offer that power into the market to avoid reliability issues associated with the physical withholding of power.

Capital Power states: *“Exempting supply or some energy from pool participation reduces the effectiveness of and benefits from having a competitive market.”* This statement is not true. Demand response is effectively supply that is exempt from pool participation, and yet manages to enhance competition in the market. Currently, no load is offering its demand response (negative supply) into the market; rather they are reacting to the forecasted pool price and that is acceptable under the AESO Market Rules.

IPCAA submits that based on the current construct of the successful EOM, Capital Power’s concerns are unfounded.

¹ AUC Proceeding 24116 X0518 PDF 8

Question 2

Please comment on the following:

- (a) The concerns expressed by AltaLink about allowing unlimited self-supply and export under the current tariff structure.

IPCAA Response:

In its submission, AltaLink states: *“Under the AESO’s current tariff, the services provided by the grid outlined above (reliability, start-up power, voltage quality, efficiency and facilitation of energy transactions) are not explicitly metered or charged. Instead, the only mechanism through which a market participant is charged for these services is by way of a [Demand Transmission Service] DTS contract. In certain circumstances, where customers self-supply, their DTS contract may not reflect the costs and benefits of being connected to the grid.”* IPCAA submits that the current ISO tariff and the Rate DTS that our members pay is intended to integrate the value of all the services that AltaLink has outlined.

AltaLink states: *“The AESO’s tariff recovers transmission costs from these self-supplied loads on a net metered basis meaning that these loads are not paying for the full value of being connected to the transmission grid.”* Customers using the transmission system as back-up pay for the privilege of that back-up via their DTS contract and pay for any energy used when they use it. Self-supply sites contract for the capacity that they need and they pay for that capacity.

AltaLink states: *“Once transmission facilities are built, these costs become embedded and need to be recovered from customers. Therefore, customers that reduce demands at the time of the monthly peak reduce their transmission costs which end up shifting grid costs to other customers.”* AltaLink’s assertion is self-serving and very short-sighted. First, it is important to note that customers who self-supply do so for a number of reasons, including:

- Security of supply;
- Steam requirements;
- Carbon footprint;
- Stable electricity prices; and
- Efficient supply.

By self-supplying, and exporting excess self-supply, these customers provide other benefits to other customers, such as:

- Locating generation at the load, which reduces transmission losses on the grid and enhances efficiency – transmission losses account for roughly 5% of all energy produced;
- Enhanced reliability to the grid due to increased supply;
- Increased supply which lowers power pool prices to all consumers; and
- Reduced requirement for new transmission facilities, therefore lowering future transmission costs.

With respect to the benefits of reduced need for transmission facilities, the AESO noted in its submission to the Distribution System Inquiry that *“for ISDs that have a consistently lower demand as a result of optimizing their supply on-site, the need for additional transmission infrastructure that would otherwise be required if that demand was served from the transmission system can be avoided.”*²

² AUC Proceeding 24116 X0518 PDF 28

Industrial investors and generation investors take risks and embed those investment costs into their companies. Markets and consumption patterns change, and investors have to assess and account for those risks. AltaLink, in its assertion, indicates that transmission costs become embedded and need to be recovered, the fundamental question is from whom? The consumer or the utility investor? AltaLink's assertion is that those costs must be recovered from the consumer; however, under the current regime, if these transmission assets are not used or useful, they should be removed from rate base.

AltaLink states that *"the current legislation to allow for more self-supply and export will create further incentives to install self-supply generation resulting in an increase in the cost shifting (cross-subsidization) between the customers that can install self-supply generation and those that cannot."* Again, IPCAA submits that AltaLink's comments are both self-serving and short-sighted. AltaLink, a transmission facility owner, is only concerned with the transmission aspect of the electricity sector, and with recovering their own costs. We need to consider the entire sector and the delivered cost of electricity.

The purpose of the Alberta market, according to the Hydro Electric Energy Act of Alberta (HEEA) is to:

- a) *to provide for the economic, orderly and efficient development and operation, in the public interest, of hydro energy and the generation and transmission of electric energy in Alberta.*

As IPCAA has pointed out, self-supply enhances efficiency in generation and increases supply for competitive price formation. At the same time, self-supply limits the need for additional transmission infrastructure. Given the impending closure of the coal-fired generators in Alberta, we will need replacement generation. It is irrational to limit the most efficient generation available, simply because transmission costs in Alberta have not been managed well. It is not responsible, fair or in the public interest to turn a series of bad decisions in the transmission business into bad decisions for generation. The annual transmission cost to consumers has increased from \$765M in 2011 to \$1,916M this year, or an increase of 150% in costs for only 15% growth in peak load over the same time period. Limiting self-supply will not fix this problem, it will simply exacerbate the generation replacement problem.

AltaLink states: *"A key concern, as already discussed, is that under the current tariff, those that self-supply benefit from net-metering and not paying their fair share of the cost for being connected to the grid."* IPCAA strongly disagrees with AltaLink that self-supply is not paying its fair share of costs. Alberta government policy has been to encourage investment in efficiency while enhancing competition. Self-supply has been a key component of the Alberta electricity market since before the establishment of the formalized EOM. Self-supply has provided needed generation to lower prices for all consumers, as well as a reduced need for new generation and transmission investment. Without the over 5,000 MW of co-generation self-supply, the Alberta electricity landscape and its costs structure would look entirely different.

The recent AUC decisions, which do not allow export of excess self-supply, except for ISDs and micro-generation, are contrary to past practice. IPCAA submits that regulatory changes should be made to return to past practice and sanction unlimited self-supply and export and the competitive foundation under which the EOM was established.

Please comment on the following:

- b) The potential impacts of changing existing tariff structures to eliminate net billing for transmission-connected generation, transmission credits for distributed-connected generation, and the Alberta Electric System Operator's use of the 12-coincident peak methodology to recover bulk transmission costs.

IPCAA Response:

Net Billing

Alberta government policy has encouraged over 5,000 MW of new cogeneration since 1998. Cogeneration and BTF generation currently supply approximately 30% of the electricity in Alberta. In 2019, the total Alberta Internal Load ("AIL") electricity consumption was 84,390 GWh,³ versus 59,565 GWh⁴ of system or DTS consumption. The difference between these two numbers, approximately 30% or 24,825 GWh, is effectively the BTF energy consumption. At this point, changing from net to gross metering would undermine the investments made in Alberta and impact the viability of those investments as well as future investor confidence.

IPCAA is concerned with the focus being limited to AltaLink's transmission cost recovery concerns. AltaLink is not a customer. They do not pay the delivered cost of energy. They have made no effort to quantify the value that this cogeneration investment has brought to ratepayers via reduced need for new generation, lower electricity costs as well as reduced wires costs.

Distributed-Connected generation ("DCG") Credits

IPCAA, in its submission to the AUC Distribution System Inquiry, stated:

"Both the value that DCGs bring to the market and the costs associated with paying for them are not well understood. The impact DCGs have on transmission system build and rates needs to be modelled. IPCAA recommends that the AUC or the AESO commission a model of the costs and benefits of increasing penetration levels of DCGs on the Alberta system and the resulting implications on the transmission tariff and the market."

IPCAA submits that this issue is best reviewed within the Distribution System Inquiry.

12 Coincident Peak ("12 CP") Methodology

IPCAA was a member of the AESO's Transmission Tariff Working Group and Tariff Design Advisory Group, and as such, had the opportunity to examine and discuss various rate design options for both the bulk and regional transmission costs. AltaLink was also a member of both groups, despite the fact that they do not pay the transmission tariff. They proposed charging more costs on a non-coincident peak (NCP) basis. NCP does not provide a price signal to consumers to reduce their consumption during times of tight supply or limited transmission capability. This would also have implications on the energy market which, to our knowledge, has not been examined by AltaLink. At this point, no one has suggested an alternative to 12 CP that would provide an appropriate price signal to consumers. Most jurisdictions use a form of CP in their tariff design.

³ AESO Historical Market Reports – Actual versus Forecast January 2019 through December 2019

⁴ DTS Values from the AESO Operating Reserve Charge Supplement January 2019 through December 2019

Please comment on the following:

- c) Whether other tariff-based solutions exist to ensure that the transmission and distribution costs are fairly allocated between users.

IPCAA Response:

IPCAA submits that generally, transmission and distribution costs are currently fairly allocated between users. The allocation is limited by the Transmission Regulation. There are options that could be implemented to enhance the current ISO Tariff design, and those have been brought up through various AESO working groups and discussions.

Please comment on the following:

- d) If you believe that no changes to the current tariff framework are required, please provide your rationale for that position.

IPCAA Response:

The use of the 12 CP methodology has incented consumers to reduce their peak demand. As an example of this, the DTS peak demand in Alberta has fallen by 188 MW over the past three years, from a peak of 8,643 MW in January 2018 to 8,455 MW in January 2020⁵. This happened while the AESO forecasted system load growth of 361 MW between January 2017 and January 2020⁶, from 9,009 MW in 2017 to 9,370 MW in 2020. Industrial response over this time period lowered the demand and reduced the need for future generation investment.

Without that demand reduction, based on the AESO's forecast of demand, a further 361 MW of new generation investment would have been required in Alberta. At a conservative investment cost of \$1.7 M / MW⁷ that amounts to over \$600M savings to ratepayers.

Legacy Facilities:

IPCAA welcomes the AUC's decision in the AESO 2018 ISO Tariff⁸ to not review legacy facilities that are engaged in self-supply and export and allow existing DCG proponents to continue to operate under the regime under which these proponents initially brought forward their generation projects. The Decision states:

"796. As with any change in practice, prior parties will receive different treatment than future entities. Consequently, it is reasonable for the AESO to propose a transition period for the implementation of its adjusted metering practice. The Commission finds the AESO's implementation and grandfathering proposal to be a reasonable approach. It allows existing DCG proponents to continue to operate under the regime under which

⁵ DTS Value from the AESO Operating Reserve Charge Supplement February 7, 2020

⁶ AESO 2017 LTO-data-file System Load at AIL Peak Reference Case

⁷ AESO Session 1 February 12, 2020-0207 V1 Slide 36

⁸ AUC Decision 22942-D01-2019 PDF184

these proponents initially brought forward their generation projects. Further, it is not unjust or unreasonable to treat new DCG proponents who have yet to receive a permit and licence and begin construction in the same way as an existing DCG proponent who is seeking to substantially change its SASR. In both circumstances, the DCG proponent is aware of the costs it would be subject to, prior to proceeding with its project.”

It is vital to provide a stable regulatory regime for these investors. IPCAA supports this decision and encourages a prompt resolution of the uncertainty around self-supply and export. The confusion in the marketplace about self-supply and export is currently creating investment uncertainty and endangering Alberta industrial projects. Allowing unlimited self-supply and export is our preferred approach, and would allow customers to optimize their own operations. It would also enable increased industrial investment, which brings economic growth and jobs to Alberta, as well as increased generation investment, which Alberta will need to replace our coal fleet.

Prohibitive wires costs in Alberta need to be addressed, but suppressing cleaner electricity supply, industrial projects and economic growth is not a responsible solution.

As always, IPCAA would be pleased to discuss this issue further and welcomes the opportunity to work with both the AUC and the Alberta Department of Energy to achieve a fair, efficient and competitive outcome.

Thank you for the opportunity to comment.

Sincerely,



Vittoria Bellissimo
Executive Director,
Industrial Power Consumers Association of Alberta