

Capacity Market Monitoring and Mitigation

Rationale

Capacity market monitoring and mitigation – background

Due to the structure of capacity markets there may be an incentive and ability for a firm to influence market prices to enhance the value of its portfolio of capacity assets at the expense of other firms or rate-payers. Firms may attempt to influence market price in a number of ways. They may attempt to physically or economically withhold supply from the market to increase prices and augment the value of their remaining capacity assets, or those firms that have a large enough net-short capacity position may be incented to offer capacity at prices below cost to suppress market prices. The purpose of market power mitigation mechanisms is to limit behaviour that introduces inefficiently high or low market prices to the benefit of one firm, at a detriment to the market as a whole.

The need for market power mitigation

The AESO and the Brattle Group have conducted analysis that evaluated the level of market concentration and the likelihood that a firm may profitably influence the market clearing price in the capacity market. The AESO has determined that the capacity market in Alberta may provide an opportunity for firms to exercise market power under certain conditions; therefore, market power mitigation mechanisms are appropriate.

7.1 Mitigation of supply-side market power

The need for supply-side mitigation

The need for supply-side market power mitigation arises when a capacity market is concentrated and certain firms control enough capacity to effectively exercise market power. Supply-side market power refers to the ability of a firm or group of firms to withhold capacity from the capacity market to increase prices to benefit its remaining capacity assets.

The level of market concentration in the Alberta capacity market can be assessed by calculating the percentage of the total unforced capacity (UCAP) controlled by the largest firms providing supply. At the time \CMD 1 was developed, the AESO calculated that the majority of the Alberta market fleet-wide unforced capacity available in the market is controlled by five firms. The five firms in Alberta control over 70% of the entire Alberta market fleet-wide unforced capacity in the market with the top two firms controlling almost 45% of the Alberta market fleet-wide unforced capacity. The latest unforced capacity data confirmed this observation. Table 1 indicates that the top five firms in Alberta control 79% of the entire Alberta market fleet-wide unforced capacity with the top two firms controlling almost 50% of the Alberta market fleet-wide unforced capacity.

Table 1 - Portion of the fleet-wide unforced capacity in the Alberta Market controlled by the top 5 firms

Firm	Offer controls based on fleet-wide unforced capacity (includes wind)
Firm 1	31.6%
Firm 2	18.6%
Firm 3	14.8%
Firm 4	11.2%
Firm 5	3.2%
Top 5 Total	79%

Table 1 above also indicates that the Alberta capacity market will be sufficiently concentrated to raise concerns of market power. Nevertheless, not all firms that control large amounts of capacity have the incentive to exercise market power. The incentive to exercise market power depends on two factors:

- 1) how responsive the clearing price is to changes in supply due to withheld capacity; and
- 2) how much additional capacity a firm has left in the market to benefit from the increased price, after withholding a portion of its portfolio capacity.

For example, consider a firm portfolio size of 500 MW of UCAP, and a competitive market clearing price of \$75/kW-year. By withholding 200 MW of its portfolio’s UCAP, the firm could increase the clearing price to \$100-kW/year, thereby gaining \$25/kW-year on the remaining 300 MW of UCAP in its portfolio. While this course of action would result in a gain of \$7.5 million to the firm, it would lose \$75/kW-year on the withheld 200 MW of UCAP, resulting in a loss of \$15 million. In this example, the firm would not have an incentive to withhold capacity from the market.

The AESO and the Brattle Group conducted analysis to determine at what size of a portfolio a firm begins to be incented to withhold capacity. The results of the analysis are dependent on the shape of the supply curve and demand curve utilized in the base auction. The shape of the supply curve and demand curve will determine how responsive the clearing price is to changes in supply due to withheld capacity. The analysis was conducted using six different demand curve shapes, and an estimated upward sloping supply curve developed by the Brattle Group. Table 2 shows, for each demand curve option and at three different quantities of withheld capacity, the minimum portfolio size at which a firm would have an incentive to withhold capacity.

Table 2 illustrates that using a demand curve with a price cap at 1.75x net-CONE, based on a resource adequacy target of 400 MWh of expected unserved energy (EUE), a firm with 1,290 MW of UCAP in its portfolio could profitably withhold 110 MW from the capacity auction. This would result in an increase in the clearing price by 10%, or by \$13/kW-year. In general, the results of the analysis indicate that a firm with a portfolio size of 1,100 MW of UCAP or greater may have the incentive to withhold capacity from the Alberta capacity market.

Table 2 – Market power incentive test results based on demand curves considered in CMD 1

	550 MW Withheld	225 MW Withheld	110 MW Withheld
Flattest Alberta Curve <i>400E 1.6x Net CONE Cap</i>	2,090 MW \$50/kW-yr	1,770 MW \$20/kW-yr	1,630 MW \$10/kW-yr
Middle Alberta Curve <i>400E 1.75x Net CONE Cap</i>	1,760 MW \$63/kW-yr	1,420 MW \$26/kW-yr	1,290 MW \$13/kW-yr
Steepest Alberta Curve <i>400E 1.9x Net CONE Cap</i>	1,550 MW \$77/kW-yr	1,210 MW \$32/kW-yr	1,080 MW \$16/kW-yr
Flattest Alberta Curve <i>100E 1.6x Net CONE Cap</i>	2,790 MW \$34/kW-yr	2,440 MW \$14/kW-yr	2,310 MW \$7/kW-yr
Middle Alberta Curve <i>100E 1.75x Net CONE Cap</i>	2,310 MW \$43/kW-yr	1,980 MW \$18/kW-yr	1,840 MW \$9/kW-yr
Steepest Alberta Curve <i>100E 1.9x Net CONE Cap</i>	2,020 MW \$52/kW-yr	1,690 MW \$21/kW-yr	1,560 MW \$11/kW-yr

Since the publication of CMD 1, the AESO has conducted further analysis on the minimum portfolio size required for a firm to be able to profit from withholding capacity. The AESO examined the minimum portfolio of UCAP required to profitably raise the clearing price by 10% based on the demand curve which is expected to be used for capacity procurement. In this analysis, the AESO examined the price change along the demand curve and did not use an upward-sloping supply curve. In this approach, the AESO performed the price change assessment above and below the inflection point on the demand curve to account for the fact that withholding capacity at different segments of the demand curve will have different impacts on auction price. The AESO assessed the average amount of capacity to be withheld to introduce a 10% increase in clearing price on both demand curve segments around the inflection point. This analysis indicated that a firm with approximately 1070 MW of UCAP would be able to profitably raise the clearing price by 10% through withholding capacity assets. Additional sensitivity analysis illustrated that a small increase in the portfolio size would allow a firm to be able to profitably increase the clearing price by 15%.

The above analysis demonstrates that the Alberta capacity market is structurally concentrated, such that there are several firms in the market that have the incentive and potential ability to exercise market power. To ensure that capacity market results are reflective of competitive outcomes, the AESO has therefore determined that ex ante supply-side market power mitigation measures, which consist of a must offer requirement, a market power screen and a default offer price cap (with a process for a firm to request an asset-specific offer price cap) are necessary. These market power mitigation components are consistent with those proposed for market power mitigation in the energy and ancillary service markets.

The supply-side mitigation measures utilized in capacity markets in other jurisdictions, summarized in Table 3, provide context and comparison for the measures proposed by the AESO. All the jurisdictions described in Table 3 utilize the same components of the supply-side mitigation measures being proposed by the AESO. These are:

- (a) a must-offer requirement to mitigate physical withholding of capacity;
- (b) a market power screen to determine which firms could potentially exercise market power;
- (c) a default offer price cap that applies to all firms that fail the market power screen; and
- (d) an asset-specific offer price cap for a firm that has failed the market power screen but can demonstrate that its qualified capacity asset's costs are higher than the default offer price cap.

Table 3 - Supply-side mitigation measures in other jurisdictions

Component	PJM	ISO-NE	NYISO	UK	Ireland
Must-offer requirement	Yes	Yes	Yes	Yes	Yes
Market power screen	3 Joint pivotal supplier	Pivotal Supplier	Pivotal Supplier	All resources are mitigated	All resources are mitigated
Default offer price cap	Net-CONE x previous three balancing ratios	Dynamic Delist Bid is the cap; Estimated cost of supplying capacity	Higher of projected auction price or net going forward costs	50% of net-CONE	50% of net-CONE
Asset-specific offer price caps	Yes, based on net going forward costs	Yes, based on net going forward costs	Yes, based on net going forward costs	Yes, based on net going forward costs	Yes, based on net going forward costs

In CMD 3, the AESO also provided an alternative market mitigation approach. This alternative includes setting a default offer cap to 1x net-CONE that would apply to all existing assets without market power screen or asset specific price caps. However, feedback from the capacity market Design Working Group on this alternative indicates both the concern that a default cap at 1x net-CONE would expose consumers to higher capacity costs and the concern that capacity market participants are unable to request asset-specific offer price cap if their assets have net avoidable costs above 1 times net-CONE. As such, the AESO is not suggesting the adoption of this alternative but rather implement the market power mitigation measures which consist of a must offer requirement, a market power screen and a default offer price cap (with a process for a capacity market participant to request an asset-specific offer price cap).

The rationale for each mitigation measure proposed by the AESO in CMD Final is provided below.

Must-offer requirement

7.1.2 The must-offer requirement and the delisting process described in Section 2, *Supply Participation*, Section 5, *Base Auction* and Section 6, *Rebalancing Auctions* have been designed to prevent physical withholding in the capacity market. A must-offer requirement is employed by each jurisdiction in Table 3. Requiring all qualified capacity assets to offer into the capacity auction facilitates competitive prices for all firms and rate-payers.

Market power screen

7.1.3 – 7.1.5

The market power screen proposed by the AESO is a structural test designed to identify firms that have a capacity offer control of a UCAP portfolio large enough to profitably exercise market power. Those firms who pass the market power screen will not be mitigated.

While any auction price increase caused by withholding capacity would lead to price distortion and an increase in consumer costs, setting a lower threshold percentage may result in over-mitigation due to possible estimation errors of portfolio UCAPs. Therefore, the AESO proposes to set the threshold for the market power screen at the average portfolio UCAP size at which a firm is able to increase the clearing price by 10% above and below the inflection point on the demand curve by economically withholding capacity, without incurring any financial loss or gain (i.e., the firm would “break even”). The portfolio size will only include the existing unforced capacity because new capacity may not be built if it does not clear in the base auction. Therefore, this new capacity should not be included in the firm’s portfolio.

The AESO tested the sensitivities of setting the price impact level at 5%–20% and did not observe material changes to the size of portfolio that would fail the market power screen. The 10% price impact level considers the possibility that a firm contemplating a withholding strategy faces uncertainty as to the potential success of the strategy due to variability in market conditions and that it may employ a certain level of expected price change before employing an economic withholding strategy. However, a higher price impact level would increase the risk of consumers having to pay higher costs caused by firms exercising market power. The price impact level needs to balance the risks of over-mitigation with consumer exposure to higher prices due to firms exercising market power. The AESO is of the view that a 10% price increase around the inflection point strikes a balance between these two types of risk.

By completing this analysis at points above and below the inflection point of the demand curve, the AESO is not predetermining where the auction will settle. While the net-CONE value is above the inflection point, which might suggest establishing the portfolio test above the inflection point, the default offer price cap is at a level below the inflection point. The AESO considers that setting the market power screen using points both above and below the inflection point balances these two considerations.

The AESO is not proposing the use of a fixed portfolio size or percentage of total market UCAP as the market power screen threshold. These static measures may not be appropriate if other market parameters, such as the demand curve shape or CONE levels change.

Market power mitigation measures will not be applied to rebalancing auctions. The majority of capacity will be procured and cleared in the base auction; therefore, the capacity to be cleared in a rebalancing auction is expected to be minimal. Therefore, both the ability of a firm to profitably withhold capacity to raise the capacity price to the benefit of its portfolio and the potential for the clearing price in the rebalancing auction to have a material adverse impact to overall procurement cost, are limited. Not applying market power mitigation measures to a rebalancing auction will reduce the risk of over-mitigation and the administrative burden of the firms and the AESO.

While the AESO will not apply market power mitigation measures to a rebalancing auction, a rebalancing auction will be included as part of the auction competitiveness assessment (see subsection 7.3.3). Should this assessment indicate that rebalancing auctions also require mitigation, the market power mitigation measures may be applied to future rebalancing auctions.

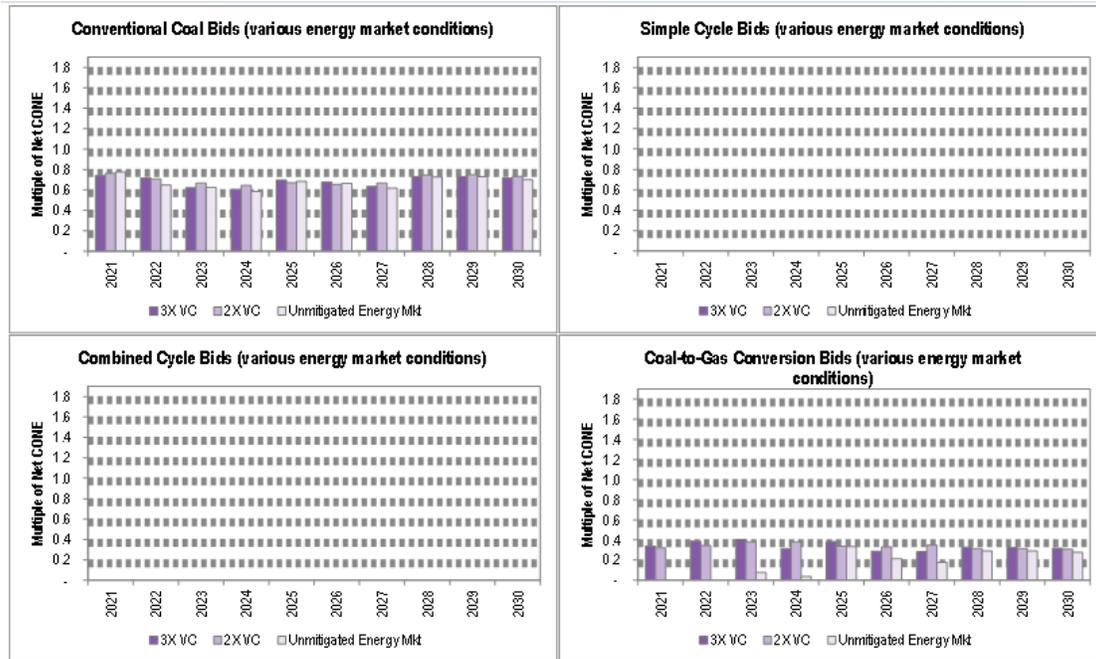
Default offer price cap

- 7.1.6 The use of a default-offer price cap is an administratively efficient mechanism (i.e., no subjective assessment a firm's behaviour), and focuses mitigation efforts on those firms that have the greatest incentive to exercise market power.

In CMD 2, the AESO proposed a default offer price cap of 50% of net CONE. This was based on an assessment of net avoidable costs for different technology types conducted by the AESO. The charts in Figure 1 below illustrate the net avoidable costs of different technologies as a percentage of net-CONE. These percentages indicate what percentage of net-CONE a capacity asset needs to receive in order to recover its net avoidable cost. In the charts, the net avoidable costs of existing conventional coal, simple cycle and combined cycle gas technologies do not include return of or on capital because the capital costs are sunk. The net avoidable cost of coal-to-gas conversion includes the return of capital because the conversion has not occurred and the capital costs have not incurred.

Figure 1 shows that the net avoidable costs of existing combined-cycle and simple-cycle gas-fired generation are 0% of net-CONE. This is because the expected energy and ancillary services revenues of these technologies are above their avoidable costs. The net avoidable costs of coal-to-gas conversion units that need to be recovered in the capacity market are 20% to 40% of net-CONE (the higher number applying before conversion costs are expended and the smaller number applying after conversion costs become sunk costs). The net avoidable costs for conventional coal units that need to be recovered in the capacity market range from 60% to 80% of net-CONE depending on the year and energy market mitigation scenario. This suggests that the default offer cap proposed by the AESO will be adequate to allow for the economic operation of the asset.

Figure 1 – Estimate of net avoidable costs by technology type



While the foregoing analysis provides the rationale for setting the default offer price cap at 50% of net-CONE and demonstrated that 50% of net CONE would allow most technology types to recover their full net going-forward costs, some stakeholders suggested that the default offer price cap is too low, resulting in over-mitigation in the capacity market. There is also a concern that the possible over-mitigation may discourage investments in capacity assets and eventually negatively impact supply adequacy. Therefore, the AESO proposes to increase the default offer price cap from 50% of net-CONE to 80% of net-CONE. The 80% of net-CONE is chosen based on the analysis that this level would allow existing conventional coal units to recover net avoidable costs and therefore represents a plausible range of the net avoidable costs of existing conventional coal units. Increasing the default offer cap to 80% of net-CONE addresses the concern of over-mitigation and potentially reduces the number of asset-specific offer price cap requests, which will reduce administrative efforts for both capacity market participants and the AESO.

There will be situations where the price cap is set at a gross-CONE multiple. This will occur when the demand curve is expressed in gross-CONE terms as described in subsection 4.4.2(c). For example, consider the demand curve price cap is set according to the formula $\max(1.75 \text{ net-CONE}, 0.5 \text{ gross-CONE})$. When net-CONE is lower than $0.5/1.75x$ gross-CONE, the default offer cap price would be set at $0.8 \times 0.5/1.75x$ gross-CONE, which is $0.23x$ gross-CONE. When net-CONE is very low (e.g. below $0.29x$ gross-CONE) in above example, it is expected that some existing units may not be as efficient in the energy and ancillary services market as the reference technology and therefore still have positive net avoidable costs. Setting the default offer price cap at a gross-CONE multiple would allow these capacity asset to offer at their avoidable costs without having to submit asset specific offer cap requests. An alternative is to set a default offer price cap at a fixed \$/kW-year when net-CONE is very low. However, setting the default offer price cap at a fixed level may result in a default offer price cap that is higher than the costs of the reference technology.

Asset-specific offer mitigation

7.1.7- 7.1.17

Asset-specific offer mitigation facilitates the participation of a qualified capacity asset that has net avoidable costs higher than the default offer price cap. This approach enables a firm that has capacity

offer control of a qualified capacity asset that has net avoidable costs higher than the default offer price cap to submit offers at levels reflective of net avoidable costs. In addition, this approach avoids over-mitigation, which may artificially drive capacity assets out of the market.

Avoidable costs are the costs that can be avoided by a firm that has capacity market offer control of a capacity asset if the asset is delisted for a year. Net avoidable costs are avoidable cost less the expected margin from energy and ancillary service sales less the variable costs incurred to generate those sales. Costs such as major maintenance investment, depreciation, servicing of capital, depreciation, are not avoidable if a capacity asset is delisted for a year. These costs should not be included in the avoidable cost calculation because a firm owning only the single asset would not include these costs in their offers.

Using net avoidable costs as the basis for asset-specific offer price caps is intended to reflect the price at which a firm that has an offer control of a qualified capacity asset but who does not hold market power, would be willing to offer that asset into the capacity auction. It is an estimate of the avoidable cost of making capacity available for the delivery period, taking into consideration expected margins from energy market operation. In all delist economic reviews, the expected net energy and ancillary services revenues will be deducted from the avoidable fixed costs of the asset.

The guiding principles on how the AESO interprets 'avoidable cost' are included in subsection 7.1.12. Shared costs that are expected to be re-allocated, transferred or re-monetized, and sunk capital, including the return of, and on, capital, are not avoidable. Therefore, these costs should not be included in the avoidable cost calculation. Including only avoidable costs to assess the asset-specific offer price cap effectively restricts market power and allows the price signal to be closer to one that would be formed absent of market power.

Expected payment adjustments costs are included in avoidable cost calculation because they are avoidable if the capacity asset does not take on a capacity obligation (e.g., if the capacity asset is delisted) and as such represent a cost of making capacity available to the market.

Project investment for continuing operation and availability improvement, opportunity costs, major incremental capital expenditures and a return on incremental capital investments, net decommission costs that were previously included in the avoidable cost calculation in CMD 2 have been removed for the following reasons:

- Project investment for continuing operation and availability improvement can only be deferred but not avoided if a capacity asset is delisted for a year. Therefore, these costs should not be included in the avoidable costs submitted for asset-specific offer price cap requests.
- Opportunity costs are primarily applicable to situations of permanent delisting and there is no requirement for an economic test for permanent delisting. Therefore, opportunity costs are not relevant in the context of market power mitigation.
- Incremental and refurbished capacity assets, as defined in Section 2, *Supply Participation*, are not subject to market power mitigation. Therefore, major incremental capital expenditures and a return on incremental capital investments over a demonstrated capacity asset life are not relevant in the context of market power mitigation.
- An asset that has permanently delisted is not subject to market power mitigation. Therefore, net decommissioning costs are not relevant in the context of market power mitigation.

The AESO also identified the need to establish the appropriate escalation rates that may be applied to calculate the costs measured in the dollar of the delivery year and the process of assessing firms' asset-specific offer price requests. These additional details will be developed by the AESO and will be subject to further consultation.

As an asset-specific offer price cap is based on net avoidable costs, a firm that requests an asset-specific offer price cap will be required to submit an asset's avoidable costs, including supporting evidence in relation to such costs. The AESO also requires a firm that requests for asset-specific offer price caps to provide variable operating costs in order to determine the energy and ancillary services market offset used to calculate net avoidable costs. The energy and ancillary services markets offset will be determined in the same manner as used for the reference unit net-CONE calculation as described in Section 4, *Calculation of Demand Curve Parameters*. Requiring the

submission of both the cost data and the attestation from a corporate officer of the firm that requests the asset-specific offer price cap is to ensure the correct cost categories are included in the submission and the costs submitted are reflective of true avoidable costs.

A firm may utilize the dispute resolution process described in Section 5, *Base Auction* if a disagreement between the firm and the AESO regarding to assets' net avoidable costs arises.

7.2 Mitigation of suppliers with net-short positions

The need for mitigation of net-short capacity positions

A firm that has a large enough net-short position (i.e., the firm would benefit from a reduced capacity-auction clearing price due to a requirement to pay for capacity) may have the ability and incentive to offer capacity into the market below cost in order to reduce prices in the capacity market. This outcome would harm all other firms in the capacity market, and could potentially discourage future capacity investment.

The AESO and the Brattle Group have conducted an assessment to estimate the minimum net-short capacity position needed to create the incentive to make uneconomic offers into the capacity market. Similar to the supply-side incentive test described above, the results of this assessment depend on the shape of the demand curve used in the capacity auction, the cost of the capacity to be offered below cost, and the overall size of a firm's net-short position. The analysis that was conducted when CMD 1 was developed tested the six different demand curves that were being considered for use in the Alberta capacity market and was based upon the assumption that capacity offered below cost was equal to 1.2x net-CONE. Table 4 illustrates that a firm would need to have a net-short position of at least 370 MW to be incented to offer 110 MW of capacity into the market below cost. Under other demand curve assumptions, the net-short position needed to have this incentive increased.

Table 4 – Estimate of net-short capacity position incentive test based on demand curves considered in CMD 1

	550 MW Net Short	225 MW Net Short	110 MW Net Short
Flattest Alberta Curve	1,200 MW	770 MW	640 MW
<i>400E 1.6x Net CONE Cap</i>	<i>\$31/kW-yr</i>	<i>\$14/kW-yr</i>	<i>\$7/kW-yr</i>
Middle Alberta Curve	1,150 MW	640 MW	520 MW
<i>400E 1.75x Net CONE Cap</i>	<i>\$33/kW-yr</i>	<i>\$18/kW-yr</i>	<i>\$9/kW-yr</i>
Steepest Alberta Curve	1,100 MW	650 MW	480 MW
<i>400E 1.9x Net CONE Cap</i>	<i>\$35/kW-yr</i>	<i>\$17/kW-yr</i>	<i>\$9/kW-yr</i>
Flattest Alberta Curve	1,050 MW	570 MW	460 MW
<i>100E 1.6x Net CONE Cap</i>	<i>\$38/kW-yr</i>	<i>\$21/kW-yr</i>	<i>\$10/kW-yr</i>
Middle Alberta Curve	990 MW	530 MW	380 MW
<i>100E 1.75x Net CONE Cap</i>	<i>\$42/kW-yr</i>	<i>\$24/kW-yr</i>	<i>\$12/kW-yr</i>
Steepest Alberta Curve	950 MW	500 MW	370 MW
<i>100E 1.9x Net CONE Cap</i>	<i>\$46/kW-yr</i>	<i>\$25/kW-yr</i>	<i>\$13/kW-yr</i>

Some firms in Alberta may have a net-short capacity position, such as a competitive retail entity or a self-supplying load. However, under the capacity cost-allocation structure directed by the government, retailers are not expected to be exposed to capacity cost. Self-supply customers may have short capacity position but the AESO's review of self-supplying loads has indicated that none of these capacity market participants have a net-short position large enough to allow them to profitably exercise buyer-side market power. Based on this, the AESO has determined that no mechanism for mitigating net-short (or buyer-side) market power is required at this time. This may need to be reviewed in the future in the event of changes to portfolio compositions, UCAP determination for self-suppliers, or capacity cost allocation structure. The AESO has also determined that implementation of a minimum-offer price requirement (MOPR) on identified net-short firms for the purpose of mitigating market power that may arise due to net-

short positions in the Alberta market is not required at this time. The AESO's analysis did not identify any firms with a large enough net-short capacity position needed to create the incentive and ability to gain from artificially suppressing capacity prices.

The main difference between Alberta and other capacity markets, where net-short capacity positions do occur, is that there are no load serving entities (LSEs) in Alberta with customers for whom they are responsible for securing capacity for. Capacity is purchased by the AESO on behalf of the load and costs are flowed through to the end use customers. Alberta based load serving entities may create a short position through financial hedges meant to lock in the price of capacity for their customers. The AESO is not aware of any of these products being offered at this time. Currently, it is unlikely that these firms have a net-short position large enough to provide the incentive to suppress market prices:

- **Regulated Rate Option (“RRO”) providers.** The RRO providers in Alberta either do not own capacity assets or are prohibited to share information with an affiliated provider that owns capacity assets. Therefore, the RRO providers do not have the ability to exercise buyer-side market power in a capacity auction.
- **Competitive retail entities.** As a result of the capacity cost allocation methodology proposed by the Government of Alberta, these retail entities (despite competitive net-short position) are not exposed to the capacity price because the capacity cost is passed to consumers through the tariff.
- **Self-supplying loads.** The Brattle Group's analysis indicates that a net-short position of over 370 MW is necessary to create the incentive to suppress prices. Through analysis completed by the AESO, there are no self-supplying loads with a short position of this magnitude.

7.3 Reporting of auction statistics and market competitiveness

7.3.1 – 7.3.3

Auction statistics and capacity market assessments may assist in ensuring the capacity market is competitive, efficient and supporting Alberta's reliability needs. This process is also intended to provide sufficient information to support business decisions, investor confidence, and allow for industry engagement on potential capacity market design flaws and possible solutions.

The AESO intends to publish on its website, as soon as reasonably practicable following a capacity auction (likely within 1 week of the capacity auction), and concurrent with the notification of auction results, the following auction statistics reports:

- (a) clearing price (\$/kW-year);
- (b) total cleared capacity (MW);
- (c) cleared capacity differentiating between existing and new resources as well as technology type; and
- (d) a list of assets with a capacity market obligation after the second rebalancing auction, including asset name, resource type, new/existing/uprates, submitting party, and awarded MWs.

The AESO will publish (a), (b) and (c) in order to promptly provide transparency to the market of the capacity market auction outcome. This provides a starting point for market participants to assess their business decisions and for market observers to analyze the competitiveness of the market.

The AESO intends to publish (d) to minimize information asymmetry and help firms identify possible parties that may be able to facilitate capacity asset substitution. The AESO does not intend to release (d) prior to the second rebalancing auction because asset substitution occurs after the conclusion of the second rebalancing auction.

The AESO will not publish the supply curve following a capacity market auction because in a concentrated market such as Alberta's, releasing offer prices may negatively impact the competitiveness of subsequent auctions. However, the AESO may consider publishing supply curve data when it determines that such data is not expected to have undue impacts on the competitiveness of the market.