

Proposed Amended ISO rule – Section 206.2, Self-Supply

<b>Period of Comment:</b>	September 7, 2018	through	September 28, 2018	<b>Contact:</b>	Colette Chekerda
<b>Comments From:</b>	ADC			<b>Phone:</b>	780-920-9399
<b>Date [yyyy/mm/dd]:</b>	2018/09/28			<b>Email:</b>	colette@carmal.ca

***Please provide comments relating to the subsection of the proposed amendments to the rule in the corresponding box. Please include any views on whether the language clearly articulates the requirement for either the AESO or a market participant, and provide any proposed alternative wording by blacklining the proposed language below.***

Section	Subsection	Proposed language	Stakeholder comments
		<b>Applicability</b>	
1		Section 206.2 applies to: <ul style="list-style-type: none"> <li>(a) the <b>legal owner</b> of a load asset that is served by one or more onsite <b>generating units</b> or <b>aggregated generating facilities</b>, excluding sites where the load is exclusively station service for the <b>generating unit</b> or <b>aggregated generating facility</b>;</li> <li>(b) the <b>legal owner</b> of a <b>generating unit</b> or an <b>aggregated generating facility</b> that self-supplies capacity for one or more onsite load assets;</li> <li>(c) the City of Medicine Hat; and</li> <li>(d) the <b>ISO</b>.</li> </ul>	Does this rule consider self-supply sites where the generation assets and load assets have different ownership?
		<b>Requirements</b> <b>Requirements to Self-supply Capacity</b>	
2	(1)	The <b>legal owner</b> of a load asset must self-supply <b>capacity</b> if such site is: <ul style="list-style-type: none"> <li>(a) metered in a manner that the metering measures both onsite generation and load as a single value for each metering interval; or</li> </ul>	The ADC is still not clear on treatment for sites where there is both a dispatchable capacity committed load and a dispatchable generator (i.e. generator dispatch is not linked to industrial process). This is a different category of self-supply which has not been contemplated in the AESO rules. The rules to date are eliminating either the generation

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		(b) is not capable of flowing all energy produced on the site on to the <b>interconnected electric system</b> .	asset or the load asset from participating unless the metering is split for the site. ADC submits that for this class of self-supply, that a net meter can measure both the load response and the generation response to dispatch. Further comments in Rule 206.8 Matrix.
2	(2)	The City of Medicine Hat must self-supply <b>capacity</b> .	
		<b>Application to Self-supply Capacity</b>	
3		The <b>legal owner</b> of a load asset and the City of Medicine Hat must provide the <b>ISO</b> , within the timelines prescribed by the <i>Capacity Market Auction Guidelines</i> , a completed application to self-supply <b>capacity</b> including all information or documents that the <b>ISO</b> specifies.	
		<b>Approval to Self-supply Capacity</b>	
4		The <b>ISO</b> must, within the timelines prescribed by the <i>Capacity Market Auction Guidelines</i> , approve an application to self-supply <b>capacity</b> if the site meets the criteria set out in subsection 2.	
		<b>Changes in Self-supply Configuration</b>	
5		The <b>legal owner</b> of a load asset that is self-supplying <b>capacity</b> pursuant to subsection 2(1) must self-supply <b>capacity</b> for a minimum of 4 <b>obligation periods</b> unless it can demonstrate to the <b>ISO</b> 's satisfaction that physical changes to the site warrant a change in self-supply configuration.	

**Please provide your comments on the following (as set out in AUC Rule 017 s. 13(b-j)):**

Item #		Stakeholder comments
1	whether you agree that amended ISO rule – <i>Section 206.2, Self-Supply</i> relates to the capacity market and why or why not	
2	whether you agree that amended ISO rule – <i>Section 206.2, Self-Supply</i> should [or should not] be in effect for a fixed term and why or why not	
3	whether you understand and agree with the objective or purpose of amended ISO rule – <i>Section 206.2, Self-Supply</i> and whether, in your view, <i>Section 206.2, Self-Supply</i> meets the objective or purpose	As written, the rule does not adequately address all self-supply configurations and this will result in over-procurement.
4	how, in your view, amended ISO rule – <i>Section 206.2, Self-Supply</i> affects the performance of the capacity market and the electricity market	
5	your views on any analysis conducted or commissioned by the AESO supporting amended ISO rule – <i>Section 206.2, Self-Supply</i>	
6	whether you agree with amended ISO rule – <i>Section 206.2, Self-Supply</i> taken together with all ISO rules and in light of the principle of a fair, efficient and openly competitive market	
7	whether you would suggest any alternatives to amended ISO rule – <i>Section 206.2, Self-Supply</i>	Yes, create a new category of self-supply configurations that addresses industrial facilities that have interruptible load assets and have developed behind the fence generation that are both dispatchable and net metered.

Item #		Stakeholder comments
8	whether you agree that the proposed provisional rule supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	Unless the AESO clarifies the consequences of separating the capacity committed load assets and generation assets to both transmission and energy settlement, these resources will not fully participate in the capacity market. This will result in over procurement.
9	whether you agree that the proposed provisional rule supports the public interest and why or why not	

*Please provide your views on the type of content that should be included in an information document associated with amended ISO rule – Section 206.2, Self-Supply.*

Proposed New ISO rule – Section 206.3, *Uniform Capacity Value Determination*

<b>Period of Comment:</b>	September 7, 2018	through	September 28, 2018	<b>Contact:</b>	Colette Chekerda
<b>Comments From:</b>	ADC			<b>Phone:</b>	780-920-9399
<b>Date [yyyy/mm/dd]:</b>	2018/09/28			<b>Email:</b>	colette@carmal.ca

***Please provide comments relating to the subsection of the proposed rule in the corresponding box. Please include any views on whether the language clearly articulates the requirement for either the AESO or a market participant, and provide any proposed alternative wording by blacklining the proposed language below.***

Section	Subsection	Proposed language	Stakeholder comments
		<b>Applicability</b>	
1		Section 206.3 applies to: (a) a <b>capacity market participant</b> ; and (b) the <b>ISO</b> .	
		<b>Requirements</b> <b>1250 Tightest Supply Cushion Hours</b>	
2		The <b>ISO</b> must select 250 hours from each 12 <b>month</b> consecutive period in the historical 60 <b>month</b> evaluation period as follows: (a) calculate the supply cushion for every hour; (b) rank all hours based on supply cushion in ascending order; (c) within the order referred to in subsection 2(b), rank hours with equivalent supply cushion in ascending order from the most recent to the most distant of time; and (d) select the first 250 hours after ranking in accordance with subsection 2(b) and 2(c).	

Section	Subsection	Proposed language	Stakeholder comments
		<p><b>Asset Specific Hours for Uniform Capacity Value Calculation</b></p>	
3	(1)	<p>The <b>ISO</b> must remove the following hours from the 1250 hours identified in subsection 2 on an asset-specific basis, in order to create an historical data set for each asset listed for a <b>capacity market participant</b> on the list:</p> <ul style="list-style-type: none"> <li>(a) hours in which there was a state of markets suspension;</li> <li>(b) hours that the <b>ISO</b> determines that the asset was affected by: <ul style="list-style-type: none"> <li>(i) an event of limited markets operations, war, invasion, armed conflict, blockade, act of public enemy, riot, revolution, insurrection, act of terrorism, sabotage, act of vandalism, fire that does not originate at the asset, lightning, explosion, earthquake or flooding; and</li> <li>(ii) a <b>mothball outage</b> or temporary economic <b>delist outage</b>;</li> </ul> </li> <li>(c) hours in which the asset had no production or consumption history;</li> <li>(d) hours in which the asset was <b>commissioning</b>; and</li> <li>(e) in the case of an import asset, hours in which the relevant transfer path was unavailable as a result of an issue on the Alberta transmission system.</li> </ul>	
3	(2)	<p>The <b>ISO</b> may, in the case of a <b>long lead time asset</b> that was synchronized but had varying start-up times for distinct portions of its MW and which required more than 1 hour to deliver such additional portions of its MW, remove the hours where the <b>ISO</b> determines that:</p> <ul style="list-style-type: none"> <li>(a) the <b>pool participant</b> reason in the Energy Trading System indicates that the asset was offline for a long lead time configuration; or</li> <li>(b) the cost assessment for the asset exceeds the <b>pool price</b>;</li> </ul> <p>in order to create an historical data set for each <b>long lead time asset</b> listed for a <b>capacity market participant</b> on the list.</p>	
3	(3)	<p>The <b>ISO</b> must, if it determines that the asset was impacted by a <b>transmission market constraint</b> during an hour in the asset’s historical data set, add the volume that was</p>	

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		curtailed to the <b>metered volume</b> in that hour for the purposes of calculating the <b>uniform capacity value</b> for the asset in accordance with subsection 5(2).	
		<b>Selection of Methodologies for Uniform Capacity Value Calculation</b>	
4		<p>The <b>ISO</b> must, when calculating a <b>uniform capacity value</b> for an asset, apply the methodologies as follows:</p> <ul style="list-style-type: none"> <li>(a) if the number of hours in the historical data set determined in accordance with subsection 3 is greater than or equal to 300 hours and less than or equal to 1250 hours then the methodologies in subsection 5 will be applied to the hours in the historical data set;</li> <li>(b) if the number of hours in the historical data set determined in accordance with subsection 3 is greater than or equal 1 hour and less than 300 hours then:               <ul style="list-style-type: none"> <li>(i) the methodologies in subsection 5 will be applied to the hours in the historical data set, as applicable; and</li> <li>(ii) the methodology in subsection 6 will be applied to the number of hours that is 300 hours minus the hours in the historical data set, determined in accordance with subsection 3;</li> </ul> </li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>(c) if the number of hours in the historical data set determined in accordance with subsection 3 is 0 hours then the methodology in subsection 6 will be applied to 300 hours.</li> </ul>	
		<b>Methodologies for Hours in the Historical Data Set</b>	
5	(1)	<p>The <b>ISO</b> must, subject to subsections 5(2) through 5(8) calculate a <b>uniform capacity value</b> for an asset as follows:</p> <ul style="list-style-type: none"> <li>(a) calculate the hourly availability factor using the time weighted <b>available capability</b> as observed in the Energy Trading System, divided by <b>maximum capability</b> observed in each hour in the historical data set;</li> <li>(b) calculate the availability factor by averaging the hourly availability factors as</li> </ul>	



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		<p>calculated in subsection 5(1)(a) over the number of hours in the historical data set; and</p> <p>(c) multiply the availability factor calculated in subsection 5(1)(b) by the asset's <b>maximum capability</b>.</p>	
5	(2)	<p>The <b>ISO</b> must calculate a <b>uniform capacity value</b> for a wind or solar <b>aggregated generating facility</b> or a run of river hydroelectric <b>generating unit</b> or <b>aggregated generating facility</b>, or an aggregated asset containing a wind or solar <b>aggregated generating facility</b> or a run of river hydroelectric <b>generating unit</b> or <b>aggregated generating facility</b>, or assets that do not receive a dispatch as follows:</p> <p>(a) calculate the hourly capacity factor by adding <b>metered energy</b> and applicable <b>ancillary services</b> volumes observed in each hour in the historical data set, and dividing by <b>maximum capability</b>;</p> <p>(b) calculate the capacity factor by averaging each hourly capacity factor in subsection 5(2)(a) over the number of hours in the historical data set; and</p> <p>(c) multiply the capacity factor calculated in subsection 5(2)(b) by the asset's <b>maximum capability</b>.</p>	
5	(3)	<p>The <b>ISO</b> must calculate a <b>uniform capacity value</b> for an import asset as follows:</p> <p>(a) calculate the lesser of an asset's <b>available capability</b> or an asset's firm transmission over a transfer path observed in each hour in the historical data set, and dividing by an asset's firm transmission capacity over a transfer path;</p> <p>(b) calculate the availability factor by averaging each hourly availability factor in subsection 5(3)(a) over the number of hours in the historical data set; and</p> <p>(c) multiply the availability factor calculated in subsection 5(3)(b) by an asset's firm transmission capacity over a transfer path.</p>	
5	(4)	The <b>ISO</b> must calculate a <b>uniform capacity value</b> for a site with one or more onsite	For generating units offered on a gross basis that also self supply, the AESO needs to

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		<p><b>generating units</b> or <b>aggregated generating facilities</b> that self-supplies <b>capacity</b> and is dispatched gross-to-grid as follows:</p> <ul style="list-style-type: none"> <li>(a) calculate a gross <b>uniform capacity value</b> using the availability factor of the asset on the self-supply site as observed in each of the hours in the historical data set; and</li> <li>(b) translate the gross <b>uniform capacity value</b> calculated in subsection 5(4)(a) to a net <b>uniform capacity value</b> using a linear regression of net-to-grid energy relative to the energy market <b>dispatches</b> issued to the asset on the self-supply site.</li> </ul>	<p>account for the AC offered into the ETS system, not just the energy dispatches in determining the UCAP for the asset.</p> <p>This is also problematic for net-metered sites with price responsive load and generation. In the event that the price wasn't sufficiently high for the price responsive load to respond, but the generator was dispatched, the net to grid generation in these hours will be undervalued.</p> <p>ADC has raised this concern before, and it is unique to sites with price responsive load and dispatchable generation.</p>
5	(5)	<p>The <b>ISO</b> must, subject to subsection 7, calculate a <b>uniform capacity value</b> for a load asset providing <b>firm consumption level</b> as follows:</p> <ul style="list-style-type: none"> <li>(a) identify the <b>metered energy</b> for the <b>settlement intervals</b> with the same <b>hour ending</b> as the hour the historical data set in the following <b>days</b>: <ul style="list-style-type: none"> <li>(i) the 15 most recent <b>business days</b> prior to the <b>day</b> with the hour in the historical data set if the hour falls on a <b>business day</b>;</li> <li>(ii) the 10 most recent weekend <b>days</b> or holidays prior to the <b>day</b> with the hour in the historical data set if the hour falls on a weekend <b>day</b> or a holiday; or</li> <li>(iii) the <b>days</b> the <b>ISO</b> specifies if, in the 45 <b>day</b> period prior to the <b>day</b> with the hour in the historical data set, there are fewer than 15 <b>business days</b> and 10 weekend <b>days</b> when <b>days</b> containing <b>settlement intervals</b> identified in subsection 5(5)(b) are excluded;</li> </ul> </li> <li>(b) determine if any <b>settlement intervals</b> referred to in subsection 5(a) contain any of hours in the historical data set in accordance with subsection 2;</li> <li>(c) calculate the qualified baseline as the average of the <b>metered energy</b> for the <b>settlement intervals</b> referred to in subsection 5(5)(a) excluding the <b>metered energy</b> for the <b>settlement intervals</b> identified in subsection 5(5)(b); and</li> <li>(d) minus an asset's declared <b>firm consumption level</b> from the qualified baseline calculated in subsection 5(5)(b).</li> </ul>	<p>The AESO needs include language that adds back in any load that was dispatched down in the energy market during the reference hours.</p> <p>The AESO also needs to clarify whether the capacity committed load assets for the initial auction are subject to the same 60 month historical data set. This is important as the participating assets will have historically responded to high pool prices and transmission cost signals.</p>

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5	(6)	The <b>ISO</b> must calculate a <b>uniform capacity value</b> for a load asset providing <b>guaranteed load reduction</b> as the <b>guaranteed load reduction</b> declared in accordance with Section 206.1, <i>Qualification of Capacity</i> .	
5	(7)	The <b>ISO</b> must calculate a <b>uniform capacity value</b> for an asset with incremental capacity by  multiplying the performance factor calculated in accordance with subsections 5(1) through 5(6), as applicable, by the sum of the assets <b>maximum capability</b> and the amount of incremental capacity.	
5	(8)	The <b>ISO</b> must calculate a <b>uniform capacity value</b> for an asset that undergoes a derate in its <b>maximum capability</b> in accordance with subsection 5, as applicable, substituting the <b>maximum capability</b> of the asset for its derated <b>maximum capability</b> .	
5	(9)	Where the <b>uniform capacity value</b> for at least 1 asset in an aggregated asset would otherwise be calculated in accordance with subsection 5(2), the <b>ISO</b> must calculate the <b>uniform capacity value</b> of all assets in the aggregated asset in accordance with subsection 5(2).	
		<b>Methodologies for Hours not in the Historical Data Set</b>	
6	(1)	The <b>ISO</b> must calculate a <b>uniform capacity value</b> for an asset in accordance with subsection 4, as follows:  (a) using a class average performance factor multiplied by <b>maximum capability</b> , where the class average performance factor is:  (i) for a load asset, 91% unless the <b>ISO</b> specifies a class average performance factor based on Alberta load data; or  (ii) for all other assets, as specified by the <b>ISO</b> ;  (b) if a class average performance factor is not available, using a performance factor based on engineering studies or equivalent engineering documents, or production or load estimates of the asset multiplied by <b>maximum capability</b> ; or	

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		(c) if a class average performance factor and production or load estimates are not available, using a performance factor based on a review of similar assets in other jurisdictions multiplied by <b>maximum capability</b> .	
6	(2)	<p>The <b>ISO</b> must calculate a <b>uniform capacity value</b> for an import asset where the hours in the historical data set are less than 250 as follows:</p> <p>(a) using the value declared, in accordance with Section 206.1, <i>Qualification of Capacity</i>, for the import asset; and</p> <p>(b) derating the value declared, in accordance with Section 206.1, <i>Qualification of Capacity</i>, to reflect the hours in the 1250 hours determined in accordance with subsection 2 where the British Columbia transfer path, Montana transfer path or Saskatchewan transfer path, as applicable, was out of service with an <b>available transfer capability</b> of 0 MW.</p>	
		<b>Test Requirement for Load Asset Providing a Firm Load Consumption</b>	
7	(1)	A <b>capacity market participant</b> must, if there were no delivery hours in the <b>obligation period</b> prior to <b>obligation period</b> that the <b>ISO</b> is calculating a <b>uniform capacity value</b> for in accordance with subsection 6(5), demonstrate to the <b>ISO</b> the ability of a load asset providing a <b>firm consumption level</b> to reduce down to the <b>firm consumption level</b> declared by the <b>capacity market participant</b> and maintain the reduction for 1 hour.	To the extent the FCL offers price quantity pairs into the ETS that are below the price cap, response to dispatches as per AESO rules should be an adequate substitute for this testing provision.
7	(2)	The <b>ISO</b> must, in the event that the load asset providing a <b>firm consumption level</b> fails the demonstration in subsection 7(1), adjust the <b>uniform capacity value</b> calculated in accordance with subsection 6(5) to reflect the observed load reduction.	
		<b>Calculation of Ranges for a Uniform Capacity Value</b>	
8	(1)	<p>The <b>ISO</b> must, subject to subsection 8(2), calculate 3 ranges for a <b>uniform capacity value</b> on an asset-specific basis as follows:</p> <p>(a) the 5% range, as follows:</p> <p style="padding-left: 40px;">(i) calculate the upper limit, as follows:</p>	

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		<ul style="list-style-type: none"> <li>(A) remove 5% of the hours identified in the historical data set, in which the asset's availability factor or capacity factor, as applicable, was the lowest;</li> <li>(B) average the asset's remaining availability factor or capacity factor, as applicable; and</li> <li>(C) multiply the average remaining availability factor or capacity factor, as applicable, by the asset's <b>maximum capability</b>; and</li> </ul> <p>(ii) calculate the lower limit, as follows:</p> <ul style="list-style-type: none"> <li>(A) remove 5% of the hours identified in the historical data set, in which the asset's availability factor or capacity factor, as applicable, was the highest;</li> <li>(B) average the asset's remaining availability factor or capacity factor, as applicable; and</li> <li>(C) multiply the average remaining availability factor or capacity factor, as applicable, by the asset's <b>maximum capability</b>;</li> </ul> <p>(b) the +/- 2% range, as follows:</p> <ul style="list-style-type: none"> <li>(i) calculate the upper limit, as follows: <ul style="list-style-type: none"> <li>(A) 2% multiplied by the <b>maximum capability</b>;</li> <li>(B) added to the <b>uniform capacity value</b>; and</li> </ul> </li> <li>(ii) calculate the lower limit, as follows: <ul style="list-style-type: none"> <li>(A) 2% multiplied by the <b>maximum capability</b>;</li> <li>(B) subtracted from the <b>uniform capacity value</b>; and</li> </ul> </li> </ul> <p>(c) the +/- 1 MW range, as follows:</p> <ul style="list-style-type: none"> <li>(i) calculate the upper limit by adding 1 MW to the <b>uniform capacity value</b>; and</li> <li>(ii) calculate the lower limit by subtracting 1 MW to the <b>uniform capacity</b></li> </ul>	

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		<b>value.</b>	
8	(2)	<p>The <b>ISO</b> must not calculate the <b>uniform capacity value</b> ranges in subsection 7(1) for:</p> <ul style="list-style-type: none"> <li>(a) assets with <b>new capacity</b> or refurbished capacity;</li> <li>(b) incremental capacity;</li> <li>(c) a load asset; and</li> <li>(d) an import asset.</li> </ul>	
		<b>Notification of Tightest Supply Cushion Hours and Preliminary Uniform Capacity Values</b>	
9	(1)	<p>The <b>ISO</b> must publish on the AESO website:</p> <ul style="list-style-type: none"> <li>(a) the 1250 tightest supply cushion hours identified in accordance with subsection 2; and</li> <li>(b) the class averages referred to in subsection 6(a).</li> </ul>	
9	(2)	<p>The <b>ISO</b> must provide the following information to a <b>capacity market participant</b> on an asset-specific basis:</p> <ul style="list-style-type: none"> <li>(a) the hours in the historical data set, referred to in subsection 3;</li> <li>(b) the <b>uniform capacity value</b> calculated in accordance with subsections 4, 5 and 6, as applicable;</li> <li>(c) the methodology used to calculate the <b>uniform capacity value</b>;</li> <li>(d) the greatest of the upper limits calculated in accordance with subsections 8(1)(a)(i), 8(1)(b)(i) and 8(1)(c)(i) to a maximum of the asset's <b>maximum capability</b>; and</li> </ul> <p>the lowest of the lower limits calculated in accordance with subsection 8(1)(a)(ii), 8(1)(b)(ii) and 8(1)(c)(ii) to a minimum of 1 MW.</p>	
		<b>Uniform Capacity Value Variances</b>	

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10	(1)	<p>A <b>capacity market participant</b> may, within the timelines prescribed by the <i>Capacity Market Auction</i> Guidelines and in the manner specified by the <b>ISO</b>, submit to the <b>ISO</b>:</p> <ul style="list-style-type: none"> <li>(a) a request to vary the <b>uniform capacity value</b> of an asset for a reason set out in subsection 10(2); and</li> <li>(b) detailed information in support of the request, including, as applicable: <ul style="list-style-type: none"> <li>(i) metering or Energy Trading System data;</li> <li>(ii) information regarding a planned or completed physical change to the asset demonstrating that the <b>maximum capability</b> will increase or decrease by at least 1 MW;</li> <li>(iii) the characteristics, selection criteria and rationale for comparable assets, for class average and jurisdictional assessment requests, including: <ul style="list-style-type: none"> <li>(A) <b>maximum capability</b>; and</li> <li>(B) available production and load data, and</li> </ul> </li> <li>(iv) engineering studies or equivalent engineering documents, or production or load estimates which are specific to the asset at its location, completed by a qualified professional engineer.</li> </ul> </li> </ul>	
10	(2)	<p>The <b>ISO</b> may accept a request made in accordance with subsection 10(1) on the following:</p> <ul style="list-style-type: none"> <li>(a) the metering or Energy Trading System data during the historical data set evaluated by the <b>ISO</b> did not accurately reflect the <b>available capability</b> of the asset;</li> <li>(b) the asset has or will undergo a physical change before the start of the <b>obligation period</b> that will increase or decrease the <b>maximum capability</b> of the asset by at least 1 MW; or</li> <li>(c) where the class average data, production or load estimates, or jurisdictional assessment used in calculating the <b>uniform capacity value</b>, in accordance with subsections 6(1)(a)(ii), 6(1)(b) or 6(1)(c), does not create a comparable representation of the asset's future performance.</li> </ul>	

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10	(3)	The <b>ISO</b> must notify the <b>capacity market participant</b> of its decision.	
		<b>Declaration and Assignment of Final Uniform Capacity Value</b>	
11	(1)	A <b>capacity market participant</b> must, in accordance with the timelines specified in the <i>Capacity Market Auction Guidelines</i> declare to the <b>ISO</b> , as applicable, the <b>uniform capacity value</b> within the range identified in subsection 8(1) that it will use for the auction.	
11	(2)	The <b>ISO</b> must, in accordance with the timelines specified in the <i>Capacity Market Auction Guidelines</i> , notify the <b>capacity market participant</b> of its assigned <b>uniform capacity value</b> .	



**Please provide your comments on the following (as set out in AUC Rule 017 s. 13(b-j)):**

Item #		Stakeholder comments
1	whether you agree that the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i> relates to the capacity market and why or why not	The rule as written isn't sufficient for firm capacity load resources to adequately determine their capacity.
2	whether you agree that the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i> should [or should not] be in effect for a fixed term and why or why not	
3	whether you understand and agree with the objective or purpose of the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i> and whether, in your view, the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i> meets the objective or purpose	
4	how, in your view, the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i> affects the performance of the capacity market and the electricity market	
5	your views on any analysis conducted or commissioned by the AESO supporting the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i>	
6	whether you agree with the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i> taken together with all ISO rules and in light of the principle of a fair, efficient and openly competitive market	

Item #		Stakeholder comments
7	whether you would suggest any alternatives to the proposed new ISO Rule – Section 206.3, <i>Uniform Capacity Value Determination</i>	See above comments
8	whether you agree that the proposed provisional rule supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	
9	whether you agree that the proposed provisional rule supports the public interest and why or why not	

***Please provide your views on the type of content that should be included in an information document associated with the proposed new ISO Rule – Section 206.3, Uniform Capacity Value Determination.***

Proposed New ISO rule – 206.8, *Obligation Period Performance Assessments*

<b>Period of Comment:</b>	September 7, 2018	through	September 28, 2018	<b>Contact:</b>	Colette Chekerda
<b>Comments From:</b>	ADC			<b>Phone:</b>	780-920-9399
<b>Date [yyyy/mm/dd]:</b>	2018/09/28			<b>Email:</b>	colette@carmal.ca

*Please provide comments relating to the subsection of the proposed rule in the corresponding box. Please include any views on whether the language clearly articulates the requirement for either the AESO or a market participant, and provide any proposed alternative wording by blacklining the proposed language below.*

Section	Subsection	Proposed language	Stakeholder comments
		<b>Applicability</b>	
1		Section 206.8 applies to: (a) the <b>ISO</b> .	
		<b>Requirements</b> <b>Availability Hours during an Obligation Period</b>	
2	(1)	The <b>ISO</b> must select 250 hours from each <b>obligation period</b> to assess availability as follows: (a) calculate the supply cushion for every hour in an <b>obligation period</b> ; (b) rank all hours based on supply cushion in ascending order; (c) within the order referred to in subsection 2(1)(b), rank hours with equivalent supply cushion in ascending order from the most recent to the most distant of time; and (d) select the first 250 hours after ranking in accordance with subsection 2(1)(b) and 2(1)(c).	
2	(2)	The <b>ISO</b> must, in order to establish the availability hours for an asset, remove the following	

Section	Subsection	Proposed language	Stakeholder comments
		<p>hours from the 250 hours identified in subsection 2(1) on an asset-specific basis:</p> <ul style="list-style-type: none"> <li>(a) hours in which there was a state of markets suspension; and</li> <li>(b) hours that the <b>ISO</b> determines that the asset is affected by an event of limited markets operations, war, invasion, armed conflict, blockade, act of public enemy, riot, revolution, insurrection, act of terrorism, sabotage, act of vandalism, fire that does not originate at the asset, lightning, explosion, earthquake or flooding.</li> </ul>	
		<b>Delivery Hours for a Settlement Period</b>	
<b>3</b>	<b>(1)</b>	<p>The <b>ISO</b> must select hours to assess delivery for a <b>settlement period</b> by identifying any hours or portions thereof in which a supply shortfall has occurred and the <b>ISO</b> has declared an energy emergency event in accordance with Section 305.1 of the <b>ISO rules, Energy Emergency Alerts</b>.</p>	
<b>3</b>	<b>(2)</b>	<p>The <b>ISO</b> must, in order to establish the delivery hours for an asset, remove the following hours from the hours selected in subsection 3(1) on an asset-specific basis:</p> <ul style="list-style-type: none"> <li>(a) hours in which there was a state of markets suspension; and</li> <li>(b) hours that the <b>ISO</b> determines that the asset was affected by an event of limited markets operations, war, invasion, armed conflict, blockade, act of public enemy, riot, revolution, insurrection, act of terrorism, sabotage, act of vandalism, fire that does not originate at the asset, lightning, explosion, earthquake or flooding.</li> </ul>	
		<b>Look-back Baseline for a Load Asset Providing a Firm Consumption Level</b>	
<b>4</b>		<p>The <b>ISO</b> must, for each of the availability hours established in subsection 2(2), calculate the look-back baseline as a volume in MW for a load asset as follows:</p> <ul style="list-style-type: none"> <li>(a) identify the <b>metered energy</b> for the <b>settlement intervals</b> with the same <b>hour ending</b> as the availability hour in the <b>days</b> which must be either: <ul style="list-style-type: none"> <li>(i) the 15 most recent <b>business days</b> prior to the <b>day</b> with the availability hour if the availability hour falls on a <b>business day</b>;</li> <li>(ii) the 10 most recent weekend <b>days</b> or holidays prior to the <b>day</b> with the</li> </ul> </li> </ul>	<p>The look back base line determination for a Firm Consumption Level Asset as written will not reflect the assets performance. The rule has to consider the dispatched MW offered in the energy market to adequately determine performance.</p>

Section	Subsection	Proposed language	Stakeholder comments
		<p>availability hour if the availability hour falls on a weekend <b>day</b> or a holiday; or</p> <p>(iii) the <b>days</b> the <b>ISO</b> specifies if, in the 45 <b>day</b> period prior to the <b>day</b> with the availability hour, there are fewer than 15 <b>business days</b> and 10 weekend <b>days</b> when <b>days</b> containing <b>settlement intervals</b> identified in subsection 4(b) are excluded;</p> <p>(b) determine if any <b>settlement intervals</b> referred to in subsection 4(a) contain:</p> <p>(i) any of the availability hours established in subsection 2(2); or</p> <p>(ii) any of the delivery hours established in subsection 3(2); and</p> <p>(c) calculate the average of the <b>metered energy</b> for the <b>settlement intervals</b> referred to in subsection 4(a) excluding the <b>metered energy</b> for the <b>settlement intervals</b> identified in subsection 4(b).</p>	
		<p><b>Delivery Baseline for a Load Asset Providing Guaranteed Load Reduction</b></p>	
5	(1)	<p>The <b>ISO</b> must, for each of the delivery hours established in subsection 3(2), calculate the standard baseline in MW as follows:</p> <p>(a) identify the <b>days</b> for the calculation which must be either:</p> <p>(i) the 10 most recent <b>business days</b> prior to the <b>day</b> with the delivery hour if the delivery hour falls on a <b>business day</b>;</p> <p>(ii) the 5 most recent weekend <b>days</b> or holidays prior to the <b>day</b> with the delivery hour if the delivery hour falls on a weekend <b>day</b> or a holiday; or</p> <p>(iii) the <b>days</b> the <b>ISO</b> specifies if, in the 35 <b>day</b> period prior to the <b>day</b> with the delivery hour, there are fewer than 10 <b>business days</b> and 5 weekend <b>days</b> when <b>days</b> identified in subsection 5(1)(b) are excluded or replaced;</p> <p>(b) exclude or replace any of the <b>days</b> identified in subsection 5(1)(a) if the following occurred:</p> <p>(i) the asset received <b>dispatch</b> for an amount greater than 0 MW;</p> <p>(ii) delivery was assessed in accordance with subsection 9(1);</p> <p>(iii) the load asset was subject to a <b>delayed forced outage</b> or <b>automatic</b></p>	

Section	Subsection	Proposed language	Stakeholder comments
		<p><b>forced outage;</b></p> <p>(iv) the load asset was subject to a <b>planned outage</b>; or</p> <p>(v) the load asset was tripped for the provision of <b>load shed service</b>;</p> <p>(c) for each of the <b>days</b> identified in accordance with subsections 5(1)(a) excluding or replacing the <b>days</b> as indicated in subsection 5(1)(b), identify the <b>metered energy</b> for the <b>settlement interval</b> with the same <b>hour ending</b> as the delivery hour; and</p> <p>(d) calculate the average of the <b>metered energy</b> for the <b>settlement intervals</b> referred to in subsection 5(1)(c).</p>	
5	(2)	<p>The <b>ISO</b> must, for each delivery hour established in subsection 3(2), calculate an adjustment factor as follows:</p> $\text{adjustment factor} = \text{delivery consumption} \div \text{historical consumption}_{3W}$ <p>where:</p> <p>delivery consumption means the average consumption in MWh during the 3 hour window occurring 1 hour before the delivery hour;</p> <p>historical consumption means the average consumption in MWh during all of the 3W hours on the <b>days</b> identified in accordance with subsections 5(1)(a) and excluding or replacing the <b>days</b> as indicated in subsection 5(1)(b); and</p> <p>3W means the 3 hour window occurring 1 hour before the same <b>hour ending</b> as the delivery hour.</p>	
5	(3)	<p>The <b>ISO</b> must establish the adjustment factor as:</p> <p>(a) 1.2 if the adjustment factor calculated in accordance with subsection 5(2) is greater than 1.2;</p> <p>(b) 0.8 if the adjustment factor calculated in accordance with subsection 5(2) is less than 0.8; or</p> <p>(c) the value calculated in accordance with subsection 5(2) in all other cases.</p>	
5	(4)	<p>The <b>ISO</b> must calculate the delivery baseline in MW as follows:</p>	

Section	Subsection	Proposed language	Stakeholder comments
		<p style="text-align: center;"><i>delivery baseline = standard day baseline x adjustment factor</i></p> <p>where:</p> <p style="padding-left: 40px;">the standard day baseline in MW is calculated in accordance with subsection 5(1); and</p> <p style="padding-left: 40px;">the adjustment factor is the value established in accordance with subsection 5(3).</p>	
		<b>Asset-specific Penalty Rate for Availability Assessment</b>	
6	(1)	<p>The <b>ISO</b> must calculate the asset-specific penalty rate in \$/MWh to be applied during the availability assessment, as follows:</p> $\text{asset-specific penalty rate} = \frac{\text{capacity payment} \times 12}{\text{capacity commitment} \times \text{hours}}$ <p>where:</p> <p style="padding-left: 40px;">capacity payment in \$/month is calculated for the asset in accordance with Section 103.10 of the <b>ISO rules</b>, <i>Capacity Payment Calculation</i>;</p> <p style="padding-left: 40px;"><b>capacity commitment</b> is in MW; and</p> <p style="padding-left: 40px;">hours is the number of availability hours established in accordance with subsection 2(2).</p>	
6	(2)	<p>The <b>ISO</b> must establish the asset-specific penalty rate in \$/MWh as:</p> <ul style="list-style-type: none"> <li>(a) \$133/MWh, if the rate calculated in accordance with subsection 6(1) is less than \$133/MWh and the clearing price of the <b>base auction</b> was greater than \$33/kW-year;</li> <li>(b) \$0/MWh, if the rate calculated in accordance with subsection 6(1) is less than \$0/MWh and the clearing price of the <b>base auction</b> was less than or equal to \$33/kW-year; or</li> <li>(c) the rate calculated in accordance with subsection 6(1) in all other cases.</li> </ul>	
		<b>Availability Assessment</b>	



Section	Subsection	Proposed language	Stakeholder comments
7	(1)	<p>The <b>ISO</b> must, as soon as practicable after an <b>obligation period</b>, identify the asset's availability volume in MWh during each of the availability hours identified in subsection 2 as follows:</p> <ul style="list-style-type: none"> <li>(a) for an asset with a <b>uniform capacity value</b> based on a capacity factor, availability volume is based on the sum of the following for each <b>settlement interval</b>, as applicable: <ul style="list-style-type: none"> <li>(i) <b>metered energy</b>;</li> <li>(ii) in the case of an asset that was subject to a <b>dispatch for spinning reserve or supplemental reserve</b>, the volume that was provided according to Section 205.5 of the <b>ISO rules</b>, <i>Spinning Reserve Technical Requirements and Performance Standards</i> or Section 205.6 of the <b>ISO rules</b>, <i>Supplemental Reserve Technical Requirements and Performance Standards</i>;</li> <li>(iii) in the case of an asset that provides <b>regulating reserve</b>, the volume based on the <b>regulating reserve</b> provided pursuant to Section 205.4 of the <b>ISO rules</b>, <i>Regulating Reserve Technical Requirements and Performance Standards</i> that is not captured as <b>metered energy</b>; and</li> <li>(iv) in the case of an asset that was impacted by a <b>transmission market constraint</b>, the volume that was curtailed;</li> </ul> </li> <li>(b) for an asset with a <b>uniform capacity value</b> based on <b>availability factor</b>, availability volume is equal to: <ul style="list-style-type: none"> <li>(i) the <b>available capability</b> submitted into the Energy Trading System where the <b>offer</b> for electric energy was available for <b>dispatch</b> for that <b>settlement interval</b>; and</li> <li>(ii) if applicable, any <b>operating reserves</b> provided in that <b>settlement interval</b> pursuant to a <b>dispatch</b>; or</li> <li>(ii) 0 MW when there was no electric energy from the asset available for dispatch for that <b>settlement interval</b>;</li> </ul> </li> <li>(c) for a load asset that provides a <b>guaranteed load reduction</b>, availability volume is the <b>available capability</b> for that <b>settlement interval</b>;</li> <li>(d) for a load asset that provides a <b>firm consumption level</b>, availability volume is</li> </ul>	<p>See comments above regarding firm consumption level resources. The availability volume should reflect the energy market dispatches in the relevant settlement intervals.</p>

Section	Subsection	Proposed language	Stakeholder comments
		<p>based on the difference between the look-back baseline calculated in accordance with subsection 3 and the <b>firm consumption level</b> for that <b>settlement interval</b>;</p> <p>(e) for self-supply assets that are dispatched gross to grid, availability volume is based on the linear regression approach set out in Section 206.3 of the <b>ISO rules, Determination of Uniform Capacity Value</b>; and</p> <p>(f) for an import asset, availability volume is the <b>available capability</b> for that <b>settlement interval</b> capped at the volume of firm transmission established in accordance with Section 206.1 of the <b>ISO Rules, Qualification of Capacity</b>.</p>	
7	(2)	<p>The <b>ISO</b> must calculate the assessment volume in MWh for an asset as follows:</p> $\text{assessment volume} = \sum \text{availability volume} - \text{capacity commitment} \times \text{hours}$ <p>where:</p> <p>availability volume in MWh is the value identified for each of the availability hours in accordance with subsection 7(1); and</p> <p>hours is the number of availability hours established in accordance with subsection 2(2).</p>	
		<p><b>Under-availability Adjustment</b></p>	
8	(1)	<p>The <b>ISO</b> must, when the assessment volume calculated in accordance with subsection 7(2) is negative, calculate the under-availability adjustment in dollars for an asset as follows:</p> $\text{under-availability adjustment} = \text{adjustment rate} \times \text{assessment volume}$ <p>where:</p> <p>adjustment rate in \$/MWh is calculated in accordance with subsection 8(2); and</p> <p>assessment volume in MWh is calculated in accordance with subsection 7(2).</p>	
8	(2)	<p>The <b>ISO</b> must calculate the adjustment rate in \$/MWh, for each asset, as follows:</p> $\text{adjustment rate} = 40\% \times 1.3 \times \text{asset-specific penalty rate}$	

Section	Subsection	Proposed language	Stakeholder comments
		<p>where:</p> <p>asset-specific penalty rate in \$/MWh is determined in accordance with subsection 6(2).</p>	
8	(3)	<p>The <b>ISO</b> must, for each asset, limit the under-availability adjustment amount for an <b>obligation period</b> to:</p> <p>(a) an amount in dollars equal to the annual cap determined in accordance with subsection 14(2) minus the sum of all under-delivery adjustments determined in accordance with subsection 12(3) for the <b>obligation period</b>, if the sum of the under-availability adjustment determined in accordance with subsection 8(1) and under-delivery adjustments for the <b>obligation period</b> is greater than the annual cap; or</p> <p>(b) the amount in dollars calculated in accordance with subsection 8(1), in all other cases.</p>	
		<p><b>Over-availability Adjustment</b></p>	
9	(1)	<p>The <b>ISO</b> must, when the assessment volume calculated in accordance with subsection 7(2) is positive, calculate the over-availability adjustment in dollars for an asset as follows:</p> $\text{over-availability adjustment} = \text{adjustment rate} \times \text{assessment volume}$ <p>where:</p> <p>adjustment rate is the value calculated in accordance with subsection 9(2); and</p> <p>assessment volume in MWh is calculated in accordance with subsection 7(2).</p>	
9	(2)	<p>The <b>ISO</b> must calculate the adjustment rate in \$/MWh, which is the same value for all assets, as follows:</p> $\text{adjustment rate} = \frac{\sum \text{under-availability adjustments}}{\sum \text{positive assessment volumes}}$ <p>where:</p> <p>under-availability adjustments in dollars is determined in accordance with 8(3) for all assets subject to a <b>capacity commitment</b> in an <b>obligation period</b>; and</p> <p>positive assessment volumes in MWh is the positive values calculated in</p>	

Section	Subsection	Proposed language	Stakeholder comments
		accordance with subsection 7(2) for all assets subject to a <b>capacity commitment</b> in an <b>obligation period</b> .	
9	(3)	The <b>ISO</b> must, for each asset, limit the over-availability adjustment amount for an <b>obligation period</b> to an amount in dollars equal to the annual cap determined in accordance with subsection 15 minus the sum of all over-delivery adjustments determined in accordance with subsection 13(3) for the <b>obligation period</b> .	
		<b>Asset-specific Penalty Rate for Delivery Assessments</b>	
10	(1)	<p>The <b>ISO</b> must calculate the asset-specific penalty rate in \$/MWh for an asset, to be applied during the delivery assessments, as follows:</p> $\text{asset-specific penalty rate} = \frac{\text{capacity payment} \times 12}{\text{capacity commitment} \times \text{hours}}$ <p>where:</p> <p>capacity payment in \$/month is calculated for the asset in accordance with Section 103.10 of the <b>ISO rules</b>, <i>Capacity Payment Calculation</i>; and</p> <p>hours is the greater of 20 or the forecasted number of energy supply shortfall hours for the <b>obligation period</b> as described in the <i>Capacity Market Auction Guidelines</i> published for the last <b>rebalancing auction</b> of the <b>obligation period</b>.</p>	
10	(2)	<p>The <b>ISO</b> must establish the asset-specific penalty rate in \$/MWh as:</p> <ul style="list-style-type: none"> <li>(a) \$1,667/MWh, if the rate calculated in accordance with subsection 10(1) is less than \$1,667/MWh and the clearing price of the <b>base auction</b> was greater than \$33/kW-year;</li> <li>(b) \$0/MWh, if the rate calculated in accordance with subsection 10(1) is less than \$0/MWh and the clearing price of the <b>base auction</b> was less than or equal to \$33/kW-year or</li> <li>(b) the rate calculated in accordance with subsection 10(1) in all other cases.</li> </ul>	
		<b>Delivery Assessments</b>	
11	(1)	The <b>ISO</b> must, as soon as practicable in the <b>settlement period</b> following each delivery hour established in subsection 3(2), identify an asset's delivery volume in MWh during	

Section	Subsection	Proposed language	Stakeholder comments
		<p>each of the delivery hours as follows:</p> <ul style="list-style-type: none"> <li>(a) for an asset with a <b>uniform capacity value</b> based on a <b>capacity factor</b> or <b>availability factor</b>, the delivery volume is based on the sum of the following for each <b>settlement interval</b>, as applicable:               <ul style="list-style-type: none"> <li>(i) <b>metered energy</b>;</li> <li>(ii) in the case of an asset that was subject to a <b>dispatch for spinning reserve</b> or <b>supplemental reserve</b>, the volume that was provided according to Section 205.5 of the <b>ISO rules, Spinning Reserve Technical Requirements and Performance Standards</b> or Section 205.6 of the <b>ISO rules, Supplemental Reserve Technical Requirements and Performance Standards</b>; and</li> <li>(iii) in the case of an asset that provided <b>regulating reserve</b>, the volume based on the <b>regulating reserve</b> provided pursuant to Section 205.4 of the <b>ISO rules, Regulating Reserve Technical Requirements and Performance Standards</b> that is not captured as <b>metered energy</b>;</li> </ul> </li> <li>(b) for a load asset that provides a <b>guaranteed load reduction</b>, the delivery volume is equal to the delivery baseline calculated in accordance with subsection 5(4) minus the following for each <b>settlement interval</b>, as applicable:               <ul style="list-style-type: none"> <li>(i) <b>metered energy</b>; and</li> <li>(ii) in the case of an asset that provided <b>spinning reserve</b> or <b>supplemental reserve</b>, the volume that was dispatched.</li> </ul> </li> <li>(c) for a load asset that provides a <b>firm consumption level</b>, the delivery volume is equal to the qualified baseline as calculated in accordance with Section 206.3 of the <b>ISO rules, Determination of Uniform Capacity Value</b> minus the following for each <b>settlement interval</b>, as applicable:               <ul style="list-style-type: none"> <li>(i) <b>metered energy</b>; and</li> <li>(ii) in the case of an asset that provided <b>spinning reserve</b> or <b>supplemental reserve</b>, the volume that was dispatched.</li> </ul> </li> <li>(d) for self-supply configurations with excess generation, the delivery volume is based on <b>metered energy</b>; and</li> </ul>	

Section	Subsection	Proposed language	Stakeholder comments
		<p>(e) for an import asset, the delivery volume is:</p> <ul style="list-style-type: none"> <li>(i) the volume in a validated <b>e-tag</b>; or</li> <li>(ii) in the case of an import asset where the <b>offer</b> price is greater than or equal to \$0.01 per MWh during the first two delivery hours that are subject to the limits referenced in Section 303.2 of the <b>ISO rules</b>, <i>Available Transfer Capability</i>, the volume in the <b>offer</b>.</li> </ul>	
11	(2)	<p>The <b>ISO</b> must adjust the delivery volumes identified in subsection 11(1) for each delivery hour to include any delivery volume adjustments due to any substitutions which was approved in accordance with Section 206.9 of the <b>ISO rules</b>, <i>Asset Substitution</i>, and as follows:</p> <ul style="list-style-type: none"> <li>(a) in the case of an asset that was impacted by a <b>transmission market constraint</b>, the volume that was curtailed will be added to the delivery volume identified in subsection 11(1);</li> <li>(b) in the case of a load asset that was armed for the provision of <b>load shed service</b>, the volume that was armed will be added to the delivery volume identified in subsection 11(1); or</li> <li>(c) in all other cases, no adjustments to the delivery volume identified in subsection 11(1).</li> </ul>	
11	(3)	<p>The <b>ISO</b> must calculate the assessment volume in MWh for an asset during each delivery hour established in subsection 3(2) as follows:</p> $\text{assessment volume} = \text{delivery volume} - (\text{capacity commitment volume} \times \text{balancing ratio})$ <p>where:</p> <ul style="list-style-type: none"> <li>delivery volume in MWh is the value in identified in subsection 11(2);</li> <li>capacity commitment volume in MWh means the quantity of electric energy expected to be delivered from an asset based on its <b>capacity commitment</b> during the supply shortfall hour or portion thereof; and</li> <li>balancing ratio is the value calculated in subsection 11(5).</li> </ul>	

Section	Subsection	Proposed language	Stakeholder comments
11	(4)	<p>The <b>ISO</b> must establish the assessment volume in MWh for an asset for each delivery hour established in subsection 3(2) as follows:</p> <ul style="list-style-type: none"> <li>(a) for an asset with a <b>uniform capacity value</b> based on a <b>capacity factor</b> or <b>availability factor</b>, the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the <b>ISO rules</b>, <i>Volume Reallocation</i>;</li> <li>(b) for self-supply configurations with excess generation the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the <b>ISO rules</b>, <i>Volume Reallocation</i>;</li> <li>(c) for an import asset, the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the <b>ISO rules</b>, <i>Volume Reallocation</i>; or</li> <li>(d) for a load asset that provides a <b>guaranteed load reduction</b> or a <b>firm consumption level</b>: <ul style="list-style-type: none"> <li>(i) if the delivery hour occurred on a <b>day</b> which the load asset was subject to a <b>delayed forced outage</b> or <b>automatic forced outage</b>, that is not the first day of that <b>delayed forced outage</b> or <b>automatic forced outage</b>, the assessment volume is 0 MWh;</li> <li>(ii) if the supply shortfall hour occurred on a <b>day</b> which the load asset was subject to a <b>planned outage</b>, the assessment volume is 0 MWh; or</li> <li>(iii) in all other cases, the assessment volume is calculated in accordance with subsection 11(3) and subject to any reallocation volumes which were approved in accordance with Section 206.10 of the <b>ISO rules</b>, <i>Volume Reallocation</i>.</li> </ul> </li> </ul>	
11	(5)	<p>The <b>ISO</b> must calculate for each delivery hour established in subsection 3(2), the balancing ratio as follows:</p> $balancing\ ratio = \min\left\{\frac{\sum\ delivery\ volumes}{\sum\ capacity\ commitment\ volumes}, 1\right\}$	

Section	Subsection	Proposed language	Stakeholder comments
		<p>where:</p> <p>delivery volumes in MWh is the values identified in subsection 11(2) for all assets subject to a <b>capacity commitment</b> in an <b>obligation period</b>; and</p> <p>capacity commitment volumes in MWh means, for each asset subject to a <b>capacity commitment</b> in an <b>obligation period</b>, the quantity of electric energy expected to be delivered from an asset based on its <b>capacity commitment</b> during the supply shortfall hour or portion thereof.</p>	
		<p><b>Under-delivery Adjustment</b></p>	
12	(1)	<p>The <b>ISO</b> must, when the assessment value determined in accordance with subsection 11(4) is negative, calculate the under-delivery adjustment in dollars for an asset as follows:</p> $\text{under-delivery adjustment} = \text{adjustment rate} \times \text{assessment volume}$ <p>where:</p> <p>adjustment rate in \$/MWh is calculated in accordance with subsection 12(2); and</p> <p>assessment volume in MWh is the value determined in accordance with subsection 11(4).</p>	
12	(2)	<p>The <b>ISO</b> must calculate the adjustment rate in \$/MWh as follows:</p> $\text{adjustment rate} = 60\% \times 1.3 \times \text{asset-specific penalty rate}$ <p>where asset-specific penalty rate in \$/MWh is determined in accordance with subsection 10(2).</p>	
12	(3)	<p>The <b>ISO</b> must, for each asset, cap the under-delivery adjustment amount for each <b>settlement period</b> to the lesser of:</p> <ul style="list-style-type: none"> <li>(a) the monthly cap determined in accordance with subsection 14(1); or</li> <li>(b) an amount equal to the annual cap determined in accordance with subsection 14(2) minus the sum of all under-delivery adjustments calculated in accordance with this subsection 12(3) for the prior <b>settlement periods</b> of the <b>obligation period</b>.</li> </ul>	



Section	Subsection	Proposed language	Stakeholder comments
		<p><b>Over-delivery Adjustment</b></p>	
13	(1)	<p>The <b>ISO</b> must, when the assessment value determined in accordance with subsection 11(4) is positive, calculate the over-delivery adjustment in dollars for an asset as follows:</p> $\text{over-delivery adjustment} = \text{adjustment rate} \times \text{assessment volume}$ <p>where:</p> <p>adjustment rate in \$/MWh is calculated in accordance with subsection 13(2); and</p> <p>assessment volume in MWh is the value determined in accordance with subsection 11(4).</p>	
13	(2)	<p>The <b>ISO</b> must calculate the adjustment rate in \$/MWh as follows:</p> $\text{adjustment rate} = \frac{\sum \text{under-delivery adjustments}}{\sum \text{positive assessment volumes}}$ <p>where:</p> <p>under-delivery adjustments in dollars is determined in accordance with 12(3) for all assets subject to a <b>capacity commitment</b> in an <b>obligation period</b>; and</p> <p>positive assessment volumes in MWh are the positive values calculated in accordance with subsection 11(4) for all assets subject to a <b>capacity commitment</b> in an <b>obligation period</b>.</p>	
13	(3)	<p>The <b>ISO</b> must, for each asset, limit the over-delivery adjustment amount in dollars for a <b>settlement period</b> to an amount equal to the annual cap determined in accordance with subsection 15 minus the sum of all over-delivery adjustments determined in accordance with this subsection 13(3) for the prior <b>settlement periods</b> of the <b>obligation period</b>.</p>	
		<p><b>Maximum Payment Adjustments for Under-availability and Under-delivery</b></p>	
14	(1)	<p>The <b>ISO</b> must cap for each asset, any under-delivery adjustment for a <b>settlement period</b> at an amount in dollars equal to:</p> <p>(a) <math>\text{monthly cap} = \text{capacity payment} \times 3</math></p> <p>where capacity payment in \$/month is the asset's monthly capacity payment calculated in accordance with Section 103.10 of the <b>ISO rules</b>, <i>Capacity</i></p>	

Section	Subsection	Proposed language	Stakeholder comments
		<p><i>Payment Calculation</i>; or</p> <p>(b) <math>monthly\ cap = default\ rate \times capacity\ commitment \times max\{supply\ shortfall\ hours, 20\}</math></p> <p>where the default rate is \$417/MW.</p>	
14	(2)	<p>The ISO must cap for each asset, the sum of any under-availability adjustment and under-delivery adjustments for each <b>obligation period</b> at an amount in dollars equal to the greater of:</p> <p>(a) <math>annual\ cap = capacity\ payment \times 12 \times 1.3</math></p> <p>where capacity payment in \$/month is the asset's monthly capacity payment calculated in accordance with Section 103.10 of the <b>ISO rules</b>, <i>Capacity Payment Calculation</i>; or</p> <p>(b) <math>annual\ cap = default\ rate \times capacity\ commitment</math></p> <p>where the default rate is \$33,333/MW.</p>	
		<p><b>Maximum Payment Adjustments for Over-availability and Over-delivery</b></p>	
15		<p>The ISO must cap for each asset, the sum of any over-availability adjustment and over-delivery adjustments for an <b>obligation period</b> at an amount in dollars equal to the greater of:</p> <p>(a) <math>annual\ cap = capacity\ payment \times 12</math></p> <p>where capacity payment means the assets monthly capacity payment in dollars determined in accordance with Section 103.10 of the <b>ISO rules</b>, <i>Capacity Payment Calculation</i>; or</p> <p>(b) <math>annual\ cap = default\ rate \times capacity\ commitment</math></p> <p>where the default rate is \$33,333/MW.</p>	

**Please provide your comments on the following (as set out in AUC Rule 017 s. 13(b-j)):**

Item #		Stakeholder comments
1	whether you agree that the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i> relates to the capacity market and why or why not	
2	whether you agree that the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i> should [or should not] be in effect for a fixed term and why or why not	
3	whether you understand and agree with the objective or purpose of the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i> and whether, in your view, the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i> meets the objective or purpose	
4	how, in your view, the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i> affects the performance of the capacity market and the electricity market	
5	your views on any analysis conducted or commissioned by the AESO supporting the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i>	
6	whether you agree with the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i> taken together with all ISO rules and in light of the principle of a fair, efficient and openly competitive market	FCL resources will not be treated fairly under the proposed rules.
7	whether you would suggest any alternatives to the proposed new ISO Rule – Section 206.8, <i>Obligation Period Performance Assessments</i>	

Item #		Stakeholder comments
8	whether you agree that the proposed provisional rule supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	
9	whether you agree that the proposed provisional rule supports the public interest and why or why not	

***Please provide your views on the type of content that should be included in an information document associated with the proposed new ISO Rule – Section 206.8, Obligation Period Performance Assessments.***

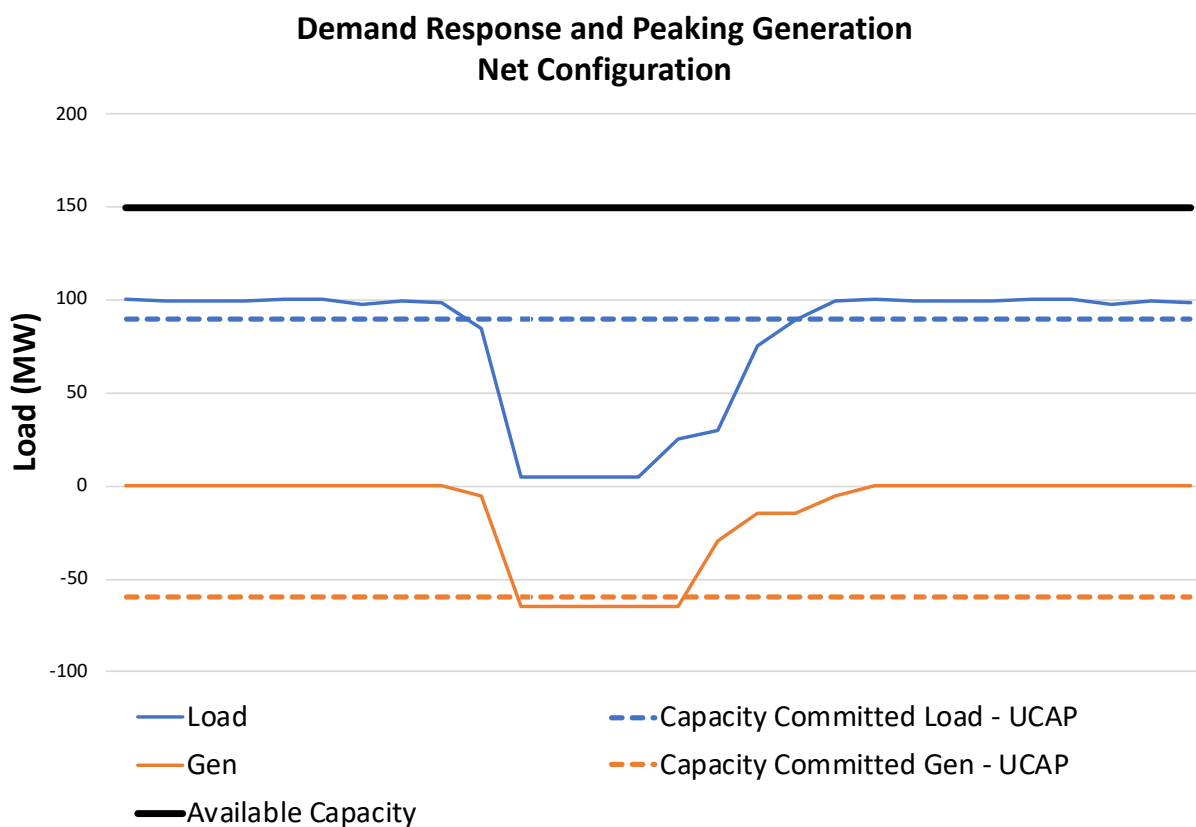
Date: September 28, 2018

To: AESO Capacity Market Rules Team Regarding Self – Supply Configurations

**The ADC has reviewed the Draft Self Supply ID and rules and wish to raise the concern that the AESO has not addressed the self-supply configuration that has peaking generation and demand response behind a net meter.**

The following illustration identifies a site that has 90MW of demand response and 60 MW of peaking simple cycle generation. Both of these assets are dispatched on price and together can provide a total capacity of 150 MW to the system.

**Problem: The AESO draft rules only recognize the load asset or the generation asset as being able to provide capacity. As a result, the AESO is not recognizing the full capability of the site.**



In this particular case, the net meter can accurately record the swing between 100 MW of import and 65MW of export. Both assets are dispatchable.

While the AESO has suggested both assets could be recognized if separated and participate as gross assets, this will add unnecessary expense to the site for an additional revenue meter. Further, the AESO has not confirmed that a site participating with capacity committed load and generation as gross assets for the purpose of the capacity market can still be settled on a net basis for DTS charges and energy settlement. Until this is confirmed, loads with behind the fence generation assets will not fully participate with their load or generation assets in the capacity market resulting in an understatement of their available capacity.

The ADC requests the AESO to accommodate this site configuration in the Capacity market rules and accompanying information document.

We would like to sit down and discuss in detail with the appropriate AESO staff. We propose the afternoon of October 4<sup>th</sup>.

Sincerely,

A handwritten signature in black ink that reads "Colette Chekerda". The signature is written in a cursive, flowing style.

Colette Chekerda, P.Eng.  
ADC Executive Director