

Proposed New Set 1 and 2 Capacity Market Terms and Definitions

<b>Period of Comment:</b>	September 21, 2018 through October 9, 2018	<b>Contact:</b>	Kris Aksomitis
<b>Comments From:</b>	The Cogeneration Working Group, as represented by Power Advisory LLC, is comprised of the following members: (1) TransCanada; (2) Suncor; (3) Cenovus; (4) Canadian Natural (CNRL); (5) Dow (6) Imperial; (7) MEG Energy; (8) Husky; (9) Nova Chemicals Corporation; (10) Syncrude; (11) Lafarge; and (12) InterPipeline. This submission represents the consensus view of the group. Individual member companies may also make independent submissions.	<b>Phone:</b>	587-894-7150
<b>Date [yyyy/mm/dd]:</b>	2018-10-09	<b>Email:</b>	kaksomitis@poweradvisoryllc.com

***Please provide comments relating to the proposed term and definition in the corresponding box. Please include any views on whether the language clearly articulates the purpose of the term and provide any proposed alternative wording by blacklining the proposed language below.***

Proposed Terms and definitions	Stakeholder comments
“ <b>base auction</b> ” means the first auction for <b>capacity</b> for an <b>obligation period</b> .	
“ <b>capacity</b> ” as defined in the <b>Act</b> , with respect to the capacity market means the ability to supply electric energy or reduce electric energy consumption as measured in MW.	
“ <b>capacity block</b> ” means one of the price and quantity pairs the <b>ISO</b> allocates to an asset for a <b>base auction</b> or <b>rebalancing auction</b> for the purposes of submitting an <b>offer</b> or <b>bid</b> in the capacity market.	
“ <b>capacity commitment</b> ” means an obligation to deliver, during an <b>obligation period</b> , a volume of an <b>offer</b> that has cleared in a <b>base auction</b> or a <b>rebalancing auction</b> .	The definition should be revised to clearly note the capacity commitment is net of repurchases from the rebalancing auctions.

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<p>“<b>capacity market participant</b>” means a <b>person</b> registered with the <b>ISO</b> in accordance with Section 201.10 of the <b>ISO rules</b>, <i>Capacity Market Participant Registration</i>, for the capacity market.</p>	
<p>“<b>delist outage</b>” means a derate or an outage for a <b>source asset</b> or load <b>sink asset</b> associated with a temporary delist referred to in section 206.9 of the ISO rules, <i>Delisting</i>.</p>	
<p>“<b>electricity market participant</b>” as defined in the <b>Act</b>, means</p> <ul style="list-style-type: none"> <li>(i) any person that supplies, generates, transmits, distributed, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services, or</li> <li>(ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or ancillary services.</li> </ul>	
<p>“<b>firm consumption level</b>” means that a load asset will consume a maximum volume of energy in MW during supply shortfall in an <b>obligation period</b>.</p>	<p>The obligation of an FCL is to make an offer to get down to a certain level in all hours. This definition needs to more broadly apply to all hours, not only during EEA events.</p>
<p>“<b>guaranteed load reduction</b>” means that a load asset will reduce consumption by a volume of energy in MW.</p>	
<p>“<b>new capacity</b>” means <b>capacity</b> from an asset:</p> <ul style="list-style-type: none"> <li>(i) that has not had an <b>offer</b> clear in a <b>base auction</b> or <b>rebalancing auction</b>; and</li> <li>(ii) in the case of a <b>generating unit</b> or <b>aggregated generating facility</b>, that has not completed energization and <b>commissioning</b> prior to the <b>obligation period</b>.</li> </ul>	<p>The CWG agrees with this definition assuming the correct interpretation that a unit is new until it clears or commissions, absent those units already in service prior to the capacity market opens.</p> <p>The second bullet should be edited as follows because it is not clear the obligation period to which this applies:</p> <ul style="list-style-type: none"> <li>(ii) in the case of a <b>generating unit</b> or <b>aggregated generating facility</b>, that has not completed</li> </ul>

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	energization and <b>commissioning</b> prior to the <del>obligation period</del> .
<p>“<b>obligation period</b>” means a 12 month period running continuously from November 1 to October 31 of the following year.</p>	
<p>“<b>rebalancing auction</b>” means an auction for <b>capacity</b> conducted after a <b>base auction</b> for an <b>obligation period</b>.</p>	Add language to clearly note “for the same obligation period as the base auction” or “for a single obligation period.”
<p>“<b>transmission market constraint</b>” means an exceedance of a reliability limit on 1 or more elements of the <b>transmission system</b>, where:</p> <ul style="list-style-type: none"> <li>(i) the <b>ISO</b> must take action to prevent or mitigate the exceedance; and</li> <li>(ii) results in an impact to the normal economic merit operation of generation, load, or <b>interchange transactions</b>,</li> </ul> <p>excluding a circumstance where the capability limits referenced in Section 303.2 of the <b>ISO rules</b>, <i>Available Transfer Capability</i> are exceeded.</p>	
<p>“<b>uniform capacity value</b>” means a uniform measure, in MW, of an asset’s ability to provide <b>capacity</b>.</p>	This definition is circular and meaningless. The CWG submits that the definition be reworded to reflect the actual calculation based on 250 hours or refer to the rule in which it is defined.

**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 ISO rule definitions] relates to the capacity market and why or why not	
2	whether you agree that [the proposed ISO rule definitions] 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 ISO rule definitions] and whether, in your view, [the proposed ISO rule definitions] meets the objective or purpose	
4	how, in your view, [the proposed ISO rule definitions] 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 ISO rule definitions]	
6	whether you agree with [the proposed ISO rule definitions] 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 [the proposed ISO rule definitions]	
8	whether you agree that the proposed provisional rule definitions supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	

Item #		Stakeholder comments
9	whether you agree that the proposed provisional rule definitions supports the public interest and why or why not	

Proposed New, Amended and Removed Energy and Ancillary Services Markets Terms and Definitions

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<b>Comments From:</b>	The Cogeneration Working Group, as represented by Power Advisory LLC, is comprised of the following members: (1) TransCanada; (2) Suncor; (3) Cenovus; (4) Canadian Natural (CNRL); (5) Dow (6) Imperial; (7) MEG Energy; (8) Husky; (9) Nova Chemicals Corporation; (10) Syncrude; (11) Lafarge; and (12) InterPipeline. This submission represents the consensus view of the group. Individual member companies may also make independent submissions.	<b>Phone:</b>	587-894-7150
<b>Date [yyyy/mm/dd]:</b>	2018-10-09	<b>Email:</b>	kaksomitis@poweradvisoryllc.com

***Please provide comments relating to the proposed term and definition in the corresponding box. Please include any views on whether the language clearly articulates the purpose of the term and provide any proposed alternative wording by blacklining the proposed language below.***

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
<p>“<b>acceptable operational reason</b>” means, any one (1) or more of the following:</p> <p>(i) a circumstance related to the operation of a generating <b>source asset</b> which if it operated could reasonably be expected to affect the safety of the <b>source asset</b>, the environment, personnel working at the <b>source asset</b> or the public;</p> <p>(ii) re-positioning a generating <b>source asset</b> assets, within the</p>	<p>“<b>acceptable operational reason</b>” means, any <del>one (1)</del> or more of the following:</p> <p>(i) a circumstance related to the operation of a generating <b>source asset or load sink asset</b> which if it operated could reasonably be expected to affect the safety of the <del>source</del>-asset, the environment, personnel working at the <del>source</del>-asset or the public;</p> <p>(ii) re-positioning a generating <b>source asset assets or load sink asset</b>, within the energy market due to the need to meet a</p>	<p>The CWG has significant concerns with the AESO’s proposed addition of vii(b) to the acceptable operational reason (AOR) definition. This proposed change would cause an immediate impact to a generator’s refund of its Generating Unit Owner’s Contribution (GUOC) as well as a future impact to a generator’s performance assessment and uniform capacity value (UCV) determination in the capacity market.</p> <p>The AESO proposes to exclude transmission constraints from UCV</p>

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<p>energy market due to the need to meet a <b>dispatch</b> given to that <b>source asset</b> from the <b>ISO</b> to serve the stand-by <b>operating reserves</b> market;</p> <p>(iii) re-positioning a generating <b>source asset</b> within the energy market to manage physical or operational constraints associated with the <b>source asset</b>;</p> <p>(iv) re-positioning a <b>pool asset</b> that is an import asset or an export asset within the energy market to manage physical or operational constraints associated with an <b>interconnection</b> or a neighbouring <b>balancing authority</b>;</p> <p>(v) a circumstance directly resulting in the generating <b>source asset</b> not being capable of operation, which circumstance was solely caused by an occurrence of <b>force majeure</b>; or</p> <p>(vi) re-positioning a generating <b>source asset</b> for electric energy that is:</p> <p>a) produced on the property of which a <b>person</b> is the owner or a tenant; and</p> <p>b) consumed solely by that <b>person</b> and solely on that property.</p>	<p><b>dispatch</b> given to that <del>source</del>-asset from the <b>ISO</b> to serve the stand-by <b>operating reserves</b> market;</p> <p>(iii) re-positioning a generating <b>source asset</b> or <b>load sink asset</b> within the energy market to manage physical or operational constraints associated with the <del>source</del>-asset;</p> <p>(iv) re-positioning a <b>pool asset</b> that is an import asset or an export asset within the energy market <del>to manage if all or a portion of the requested transmission service cannot be procured, or the transmission service is curtailed by any transmission service provider other than the ISO</del></p> <p><del>(iv)-physical or operational constraints associated with an interconnection or a neighbouring balancing authority;</del></p> <p>(v) a circumstance directly resulting in the generating <b>source asset</b> or <b>load sink asset</b> not being capable of operation, which circumstance was solely caused by an occurrence of <b>force majeure</b>; <del>or</del></p> <p>(vi) re-positioning a generating <b>source asset</b> for electric energy that is:</p> <p>(a) produced on the property of which a <b>person</b> is the owner or a tenant; and</p>	<p>determinations except in circumstances where a transmission outage causes a generator to disconnect from the system. The CWG agrees that transmission constraints should be excluded from UCV determinations; this should also include transmission outages that cause a generator to disconnect from the system. In general, it is not in the spirit of just and reasonable rates or the FEOC principles to penalize a market participant for a transmission outage it did not cause. In this case, the impacts to a market participant would be patently unfair if the event was severe enough to cause disconnect. Not only would the market participant suffer lost revenue, as is the case currently, but the proposed treatment would reduce its UVC and potentially trigger capacity market penalties.</p> <p>The AESO has not indicated its rationale for the proposed treatment and the CWG requests that either the distinction is removed or a proper rationale is provided. If the AESO's rationale arises from a view that a disconnection may result from the generator's connection choice, the CWG submits the following: (i) the disconnection would not have occurred without the preceding transmission outage; and (ii) a generator's connection choice was approved by the AESO and meets the requisite Alberta Reliability Standards. In this case, the generator has done nothing wrong and is operating in accordance with good utility</p>

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	<p>(b) consumed solely by that <b>person</b> and solely on that property;-</p> <p>(vii) re-positioning a generating <b>source asset</b> within the energy market in response to:</p> <p>(a) a distribution constraint that causes a limitation to the normal economic merit operation of the generating <b>source asset</b>, or to the flow of electrical energy from the generating <b>source asset</b> from one part of the <b>electric distribution system</b> to the other; or</p> <p>(b) a transmission outage that results in the generating <b>source asset</b> being electrically disconnected from the <b>transmission system</b>; or</p> <p>(viii) re-positioning a load <b>sink asset</b> within the energy market to reflect a <b>capacity commitment</b>.</p>	<p>practice, and should not incur further harm caused by a transmission outage.</p>
<p>“adequacy” means the ability of the <b>interconnected electric system</b> to supply the aggregate electrical demand and energy requirements of <b>market participants</b> receiving <b>system access service</b>, taking into account <b>planned outages</b> and reasonably expected <b>delayed forced outages</b> and <b>automatic forced outages</b> of <b>system elements</b>.</p>	<p>“adequacy” means the ability of the <b>interconnected electric system</b> to supply the aggregate electrical demand and energy requirements of <b>electricity market participants</b> receiving <b>system access service</b>, taking into account <b>delist outages</b>, <b>planned outages</b> and reasonably expected <b>delayed forced outages</b> and <b>automatic forced outages</b> of <b>system elements</b>.</p>	<p>The definition should make it clear that this is for firm demand, <i>i.e.</i> excluding demand that has sold into the capacity market. The AESO needs to ensure that it is not double counting demand. It cannot be removed from the demand side and then added to the supply side.</p>



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<p>“agent” includes:</p> <ul style="list-style-type: none"> <li>(i) a representative of a <b>pool participant</b> duly appointed and authorized by the <b>pool participant</b> under <b>ISO rule 1.8</b> to act on behalf of and bind the <b>pool participant</b> with regard to transactions and other activities on the Energy Trading System and the automated dispatch and messaging system; or</li> <li>(ii) a representative of a <b>market participant</b> or a <b>pool participant</b>, as the case may be, duly appointed and authorized to act on behalf of and bind that person with regard to other <b>ISO</b> activities, procedures and requirements, which such appointment is made under and in accordance with the applicable <b>ISO rules</b>, authorizations and procedures.</li> </ul>	<p>“agent” includes:</p> <ul style="list-style-type: none"> <li>(i) a representative of a <b>pool participant</b> duly appointed and authorized by the <b>pool participant</b> under <del>ISO rule 1.8</del> <b>Section 201.2 of the ISO rules, Appointment of Agent</b> to act on behalf of and bind the <b>pool participant</b> with regard to transactions and other activities on the Energy Trading System and the automated dispatch and messaging system; or</li> <li>(ii) a representative of a <b>market participant</b> or a <b>pool participant</b>, as the case may be, duly appointed and authorized to act on behalf of and bind that person with regard to other <b>ISO</b> activities, procedures and requirements, which such appointment is made under and in accordance with the applicable <b>ISO rules</b>, authorizations and procedures.</li> </ul>	
<p>“allowable dispatch variance” means:</p> <ul style="list-style-type: none"> <li>(i) for each generating <b>source asset</b>, other than a wind <b>aggregated generating facility</b>, as measured from the <b>dispatch</b> quantity: <ul style="list-style-type: none"> <li>(a) plus or minus five (5) MW for a generating <b>source asset</b> with a <b>maximum capability</b> of two hundred (200) MW or less; or</li> </ul> </li> </ul>	<p>“allowable dispatch variance” means:</p> <ul style="list-style-type: none"> <li>(i) for each generating <b>source asset</b>, other than a wind or solar <b>aggregated generating facility</b>, as measured from the <b>dispatch</b> quantity, <del>plus or minus the dispatch tolerance, in MW;</del> <ul style="list-style-type: none"> <li><del>(a) plus or minus five (5) MW for a generating source asset with a maximum capability of two hundred (200) MW or less; or</del></li> <li><del>(b) plus or minus ten (10) MW for a generating source asset</del></li> </ul> </li> </ul>	<p>The definition is extremely confusing. Adding to this confusion is the fact that:</p> <ul style="list-style-type: none"> <li>(ii)(b) is incomplete: “plus or minus ten (10) MW from the”</li> <li>(ii) is used twice in the list</li> </ul>

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<p>(b) plus or minus ten (10) MW for a generating <b>source asset</b> with a <b>maximum capability</b> of greater than two hundred (200) MW;</p> <p>(ii) for each wind <b>aggregated generating facility</b> with a <b>maximum capability</b> of two hundred (200) MW or less:</p> <p>(a) five (5) MW greater than the <b>dispatch</b> quantity and five (5) MW less than the potential <b>real power</b> capability, if the potential <b>real power</b> capability is less than the <b>dispatch</b> quantity; or</p> <p>(b) plus or minus five (5) MW from the <b>dispatch</b> quantity, if the potential <b>real power</b> capability is greater than or equal to the <b>dispatch</b> quantity; and</p> <p>(iii) for each wind <b>aggregated generating facility</b> with a <b>maximum capability</b> of greater than two hundred (200) MW:</p> <p>(a) ten (10) MW greater than the <b>dispatch</b> quantity and ten (10) MW less than the potential <b>real power</b> capability, if the potential <b>real power</b> capability is less than the <b>dispatch</b> quantity; or</p> <p>(b) plus or minus ten (10) MW from the <b>dispatch</b> quantity, if the potential <b>real power</b> capability is greater than or</p>	<p><del>with a <b>maximum capability</b> of greater than two hundred (200) MW;</del></p> <p>(ii) for each wind or solar <b>aggregated generating facility</b> <del>with a <b>maximum capability</b> of two hundred (200) MW or less:</del></p> <p>a) the <b>dispatch tolerance</b>, in MW, greater than the <b>dispatch</b> quantity, and the <b>dispatch tolerance</b>, in MW, less than the potential <b>real power</b> capability, if the potential <b>real power</b> capability is less than the <b>dispatch</b> quantity; or</p> <p><del>b) plus or minus the five (5) MW greater than the <b>dispatch</b> quantity and five (5) MW less than the potential <b>real power</b> capability, if the potential <b>real power</b> capability is less than the <b>dispatch</b> quantity; or</del></p> <p><del>c) plus or minus five (5) MW from the <b>dispatch</b> quantity, if the potential <b>real power</b> capability is greater than or equal to the <b>dispatch</b> quantity; and</del></p> <p><del>d) for each wind or solar <b>aggregated generating facility</b> with a <b>maximum capability</b> of greater than two hundred (200) MW:</del></p> <p><del>e) ten (10) MW greater than the <b>dispatch</b> quantity and ten (10) MW less than the potential <b>real power</b> capability, if the potential <b>real power</b> capability is less than the <b>dispatch</b></del></p>	

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equal to the <b>dispatch</b> quantity.	<p><del>quantity; or</del></p> <p>f)(b) plus or minus ten (10) MW from the <b>dispatch</b> quantity, if the <del>potential real power</del> capability is greater than or equal to the <b>dispatch</b> quantity.</p> <p>(ii) for each load <b>sink asset</b> that is providing a <b>firm consumption level</b> as measured between:</p> <ul style="list-style-type: none"> <li>a) the qualified baseline minus the <b>dispatch</b> quantity plus the <b>dispatch tolerance</b>, and</li> <li>b) 0 MW.</li> </ul> <p>(iii) for each load <b>sink asset</b> providing <b>guaranteed load reduction</b> as measured from the <b>dispatch</b> quantity, plus or minus the <b>dispatch tolerance</b>, in MW.</p>	
<p>“<b>available capability</b>” means:</p> <ul style="list-style-type: none"> <li>(i) for a generating <b>source asset</b>, the maximum MW that the <b>source asset</b> is physically capable of providing; or</li> <li>(ii) for an import <b>source asset</b>, the MW that the <b>pool participant</b> submits in an <b>offer</b>.</li> </ul>	<p>“<b>available capability</b>” means:</p> <ul style="list-style-type: none"> <li>(i) for a generating <b>source asset</b> or load <b>sink asset</b>, the maximum MW that the <b>source asset</b> is physically capable of providing; or</li> <li>(ii) for an import <b>source asset</b>, the MW that the <b>pool participant</b> submits in an <b>offer</b>.</li> </ul>	
“ <b>bid</b> ” means, in respect of a <b>pool asset</b> in a <b>settlement interval</b> ,	“ <b>bid</b> ” means:;	

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<p>a <b>pool participant</b> submission to purchase:</p> <p>(i) electric energy and includes all of the <b>operating blocks</b> the <b>pool participant</b> uses for that submission; or</p> <p>(ii) from applicable Alberta markets.</p>	<p>(i) in respect of a <b>pool asset</b> in a <b>settlement interval</b>, a <b>pool participant</b> submission to purchase:</p> <p><del>(i)a</del> electric energy and includes all of the <b>operating blocks</b> the <b>pool participant</b> uses for that submission; or</p> <p><b>b) operating reserves</b> from applicable Alberta markets; or</p> <p>(ii) in respect of an asset in a <b>rebalancing auction</b>, a <b>capacity market participant's</b> submission to buy back all or a portion of its <b>capacity commitment</b>, and includes all of the <b>capacity blocks</b> the <b>capacity market participant</b> uses for that submission.</p>	
<p>“<b>business day</b>” means a day other than:</p> <p>(i) a holiday during which banks in Alberta are generally closed;</p> <p>(ii) Saturday; or</p> <p>(iii) Sunday.</p>	<p>“<b>business day</b>” means <del>as defined in the Act</del> means a <b>day other than a Saturday or a holiday as defined in the Interpretation Act.</b></p> <p><del>a day other than:</del></p> <p><del>(i) a holiday during which banks in Alberta are generally closed;</del></p> <p><del>(ii) Saturday; or</del></p> <p><del>(iii) Sunday.</del></p>	The first “means” needs to be removed
<p>“<b>constraint effective factor</b>” means a ratio, based on the results of load flow studies conducted by the <b>ISO</b>, of the change in the flow of electric energy through a <b>transmission constraint</b> to a change in energy production, energy consumption or an electric</p>	<p>“<b>constraint effective factor</b>” means a ratio, based on the results of load flow studies conducted by the <b>ISO</b>, of the change in the flow of electric energy through a <b>transmission market constraint</b> to a change in energy production, energy consumption or an electric</p>	

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energy flow across an <b>interconnection</b> .	energy flow across an <b>interconnection</b> .	
“ <b>downstream constraint side</b> ” means, in relation to the transmission elements that comprise the <b>transmission constraint</b> , those elements of the <b>interconnected electric system</b> more proximate to the load or consumption side of the <b>transmission constraint</b> than to the supply side of the <b>transmission constraint</b> .	“ <b>downstream constraint side</b> ” means, in relation to the transmission elements that comprise the <b>transmission market constraint</b> , those elements of the <b>interconnected electric system</b> more proximate to the load or consumption side of the <b>transmission market constraint</b> than to the supply side of the <b>transmission market constraint</b> .	
“ <b>flexible block</b> ” means <b>operating block</b> in an energy <b>offer</b> for which the <b>ISO</b> may issue a <b>dispatch</b> for full or partial amounts of MW.	“ <b>flexible block</b> ” means: (i) <b>an operating block</b> in an energy <b>offer or bid</b> for which the <b>ISO</b> may issue a <b>dispatch</b> for full or partial <del>amounts of MW</del> ; or (ii) <b>a capacity block</b> in an <b>offer or bid</b> for <b>capacity</b> that the <b>ISO</b> may partially or fully clear in a <b>base auction or rebalancing auction</b> .	
“ <b>generating asset steady state</b> ” means the state of operation that begins the first <b>10 minute clock period</b> following the period in which a generating <b>source asset</b> ’s output has reached the MW specified in an energy market <b>dispatch</b> , plus or minus the <b>allowable dispatch variance</b> for that generating <b>source asset</b> .	“ <b>generating-asset steady state</b> ” means the state of operation that begins the first <b>10 minute clock period</b> following the period in which a generating <b>source asset</b> ’s output <b>or a load sink asset’s consumption</b> has reached the MW specified in an energy market <b>dispatch</b> , plus or minus the <b>allowable dispatch variance</b> for that generating <b>source asset or load sink asset</b> .	
“ <b>incremental generation costs</b> ” means, where the <b>ISO</b> has	“ <b>incremental generation costs</b> ” means, where the <b>ISO</b> has issued a	

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<p>issued a <b>directive</b>:</p> <p>(i) for energy from a <b>long lead time asset</b>; or</p> <p>(ii) to cancel, in the case of a generating <b>source asset</b>, any one (1) or more of a <b>planned outage</b>, a <b>delayed forced outage</b> or an <b>automatic forced outage</b>, requiring that a <b>long lead time asset</b> or a generating <b>source asset</b>, be made available to, or to actually, operate, exchange electric energy or provide <b>ancillary services</b>, those reasonable costs incurred that are reasonably attributed to compliance with the <b>directive</b> and which would have been avoided but for the <b>directive</b>, and include:</p> <p>(iii) in the case of compliance with a <b>directive</b> for energy from a <b>long lead time asset</b>:</p> <p>(a) the actual costs of all variable charges from Rate STS of the <b>ISO tariff</b>, including any applicable <b>loss factors</b> charge or credit;</p> <p>(b) variable operational and maintenance charges;</p> <p>(c) fuel costs to start and run the <b>long lead time asset</b> or the generating <b>source asset</b>; and</p> <p>(d) other related reasonable costs;</p>	<p><b>directive</b>:</p> <p>(i) for energy from a <b>long lead time asset</b>; or</p> <p>(ii) to cancel, in the case of a generating <b>source asset</b>, any one (1) or more of a <b>planned outage</b>, a <b>delist outage</b>, a <b>delayed forced outage</b> or an <b>automatic forced outage</b>, requiring that a <b>long lead time asset</b> or a generating <b>source asset</b>, be made available to, or to actually, operate, exchange electric energy or provide <b>ancillary services</b>, those reasonable costs incurred that are reasonably attributed to compliance with the <b>directive</b> and which would have been avoided but for the <b>directive</b>, and include:</p> <p>(iii) in the case of compliance with a <b>directive</b> for energy from a <b>long lead time asset</b>:</p> <p>(a) the actual costs of all variable charges from Rate STS of the <b>ISO tariff</b>, including any applicable <b>loss factors</b> charge or credit;</p> <p>(b) variable operational and maintenance charges;</p> <p>(c) fuel costs to start and run the <b>long lead time asset</b> or the generating <b>source asset</b>; and</p> <p>(d) other related reasonable costs;</p>	

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<p>(iv) in the case of compliance with a <b>directive</b> canceling a <b>planned outage</b>, a <b>delayed forced outage</b> or an <b>automatic forced outage</b> for a generating <b>source asset</b>, those costs incurred:</p> <p>(a) to plan, prepare for and execute the outage, from initial planning and inception to the date of the <b>directive</b> canceling the outage;</p> <p>(b) subsequent to the date of the <b>directive</b> cancelling the outage and in accordance with <b>good electric industry practice</b>;</p> <p>(c) for re-scheduling personnel, equipment and other materials required for the performance of the work originally to be completed or performed pursuant to the cancelled outage;</p> <p>(d) in the form of verified damages or liquidated claims dollar amounts or claimed by third parties pursuant or related to:</p> <p>(A) any third party contract terms and conditions for performing repair, retrofit, upgrade or maintenance work on or directly related to the <b>source asset</b> during the outage, which third party work has been</p>	<p>(iv) in the case of compliance with a <b>directive</b> canceling a <b>planned outage</b>, a <b>delist outage</b>, a <b>delayed forced outage</b> or an <b>automatic forced outage</b> for a generating <b>source asset</b>, those costs incurred:</p> <p>(a) to plan, prepare for and execute the outage, from initial planning and inception to the date of the <b>directive</b> canceling the outage;</p> <p>(b) subsequent to the date of the <b>directive</b> cancelling the outage and in accordance with <b>good electric industry practice</b>;</p> <p>(c) for re-scheduling personnel, equipment and other materials required for the performance of the work originally to be completed or performed pursuant to the cancelled outage;</p> <p>(d) in the form of verified damages or liquidated claims dollar amounts or claimed by third parties pursuant or related to:</p> <p>(A) any third party contract terms and conditions for performing repair, retrofit, upgrade or maintenance work on or directly related to the <b>source asset</b> during the outage, which third party work has been cancelled or otherwise cannot be performed due to the outage cancellation; and</p> <p>(B) any third party market or hedging transactions directly</p>	

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<p>cancelled or otherwise cannot be performed due to the outage cancellation; and</p> <p>(B) any third party market or hedging transactions directly related to participation in the energy or <b>ancillary services</b> market by the <b>source asset</b> which is the subject of the <b>directive</b>; and</p> <p>(e) as other related reasonable costs.</p>	<p>related to participation in the energy or <b>ancillary services</b> market by the <b>source asset</b> which is the subject of the <b>directive</b>; and</p> <p>(e) as other related reasonable costs.</p>	
<p>(i) <b>“inflexible block”</b> means <b>operating block</b> in an energy <b>offer</b> for which the <b>ISO</b> may issue a <b>dispatch</b> for only the full amount of MW in the <b>operating block</b>.</p>	<p><b>“inflexible block”</b> means:</p> <p>(i) <b>an operating block</b> in an energy <b>offer</b> for which the <b>ISO</b> may issue a <b>dispatch</b> for only the full amount of MW in the <b>operating block</b>; or</p> <p>(ii) <b>a capacity block</b> in an <b>offer</b> or <b>bid</b> for <b>capacity</b> that the <b>ISO</b> may not partially clear in a <b>base auction</b> or <b>rebalancing auction</b>.</p>	
<p><b>“market participant”</b> as defined in the <b>Act</b> means:</p> <p>(i) any <b>person</b> that supplies, generates, transmits, distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or <b>ancillary services</b>; or</p> <p>(ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity</p>	<p><b>“market participant”</b> as defined in the <b>Act</b> means <b>an electricity market participant or a capacity market participant</b>:</p> <p><del>(i) any person that supplies, generates, transmits, distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services; or</del></p> <p><del>(ii) any broker, brokerage or forward exchange that trades or</del></p>	



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services or <b>ancillary services</b> .	<del>facilitates the trading of electricity, electric energy, electricity services or ancillary services.</del>	
<p>“<b>maximum capability</b>” means:</p> <ul style="list-style-type: none"> <li>(i) for a <b>generating unit</b> or <b>aggregated generating facility</b>, the maximum MW that it is physically capable of providing under optimal operating conditions while complying with all applicable <b>ISO rules</b> and terms and conditions of the <b>ISO tariff</b>; or</li> <li>(ii) for a <b>source asset</b> that is an import asset, the <b>available capability</b>.</li> </ul>	<p>“<b>maximum capability</b>” means:</p> <ul style="list-style-type: none"> <li>(i) for a <b>generating unit</b> or <b>aggregated generating facility</b>, the maximum MW that it is physically capable of providing under optimal operating conditions while complying with all applicable <b>ISO rules</b> and terms and conditions of the <b>ISO tariff</b>; or</li> <li>(ii) for a <b>source asset</b> that is an import asset, the <b>available capability</b>.</li> <li>(iii) for a load <b>sink asset</b>, the <b>capacity</b> that a load <b>sink asset</b> is capable of providing during an <b>obligation period</b>.</li> </ul>	
<p>“<b>offer</b>” means, in respect of a <b>pool asset</b> in a <b>settlement interval</b>, a <b>pool participant</b> submission to sell:</p> <ul style="list-style-type: none"> <li>(i) electric energy or <b>dispatch down service</b> and includes all of the <b>operating blocks</b> the <b>pool participant</b> uses for that submission; or</li> <li>(ii) to applicable Alberta markets.</li> </ul>	<p>“<b>offer</b>” means:;</p> <ul style="list-style-type: none"> <li>(i) in respect of a <b>pool asset</b> in a <b>settlement interval</b>, a <b>pool participant</b> submission to sell, <b>updated to reflect mitigation as applicable</b>:</li> <li>(i)a) electric energy or <b>dispatch down service</b> and includes all of the <b>operating blocks</b> the <b>pool participant</b> uses for that submission; or</li> </ul>	

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	<p>(ii)b) <b>operating reserves</b> to applicable Alberta markets; or.</p> <p>(ii) in respect of an asset in a <b>base auction</b> or <b>rebalancing auction</b>, a <b>capacity market participant's</b> submission to sell <b>capacity</b> and includes all of the <b>capacity blocks</b> the <b>capacity market participant</b> uses for that submission;</p>	
<p>“<b>operational deviation</b>” means:</p> <p>(i) a generating <b>source asset</b> is unable to comply with the ramping requirements set out in Section 4 of subsection 203.4 of the <b>ISO rules, Delivery Requirements for Energy</b>; or</p> <p>(ii) <b>source asset</b> operating in <b>generating asset steady state</b> varies outside its <b>allowable dispatch variance</b>, due to <b>force majeure</b> or any other circumstances related to the operation of the generating <b>source asset</b> which could reasonably be expected to affect the <b>available capability</b> or safety of the generating <b>source asset</b>, third party facilities, contracts or arrangements, the environment, personnel working at the generating <b>source asset</b> or the public.</p>	<p>“<b>operational deviation</b>” means:</p> <p>(i) a generating <b>source asset</b> or <b>load sink asset</b> is unable to comply with the ramping requirements set out in Section <del>4 of subsection</del> 203.4 of the <b>ISO rules, Delivery Requirements for Energy</b>; or</p> <p>(ii) a <b>generating source asset</b> or <b>load sink asset</b> operating in <del>generating-asset</del> <b>steady state</b> varies outside its <b>allowable dispatch variance</b>, due to <b>force majeure</b> or any other circumstances related to the operation of the generating <b>source asset</b> or <b>load sink asset</b> which could reasonably be expected to affect the <b>available capability</b> or safety of the generating <b>source asset, load sink asset</b>, third party facilities, contracts or arrangements, the environment, personnel working at the generating <b>source asset, load sink asset</b> or the public.</p>	
<p>“<b>planned outage</b>” means the full or partial unavailability of a facility which is anticipated as part of a <b>legal owner's</b> regular</p>	<p>“<b>planned outage</b>” means the full or partial unavailability of a facility which is anticipated as part of a <b>legal owner's</b> regular maintenance,</p>	

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maintenance, including for the purposes of construction, <b>commissioning</b> or testing, and occurs as a result of a deliberate manual action.	including for the purposes of construction, <b>commissioning</b> or testing, and occurs as a result of a deliberate manual action, <b>but excludes a delist outage.</b>	
“ <b>point of delivery</b> ” means the point at which electricity is transferred from <b>transmission facilities</b> to facilities owned by a <b>market participant</b> receiving <b>system access service</b> under the <b>ISO tariff</b> , including an <b>electric distribution system</b> .	“ <b>point of delivery</b> ” means the point at which electricity is transferred from <b>transmission facilities</b> to facilities owned by an <b>electricity market participant</b> receiving <b>system access service</b> under the <b>ISO tariff</b> , including an <b>electric distribution system</b> .	
“ <b>point of supply</b> ” means the point at which electricity is transferred to <b>transmission facilities</b> from facilities owned by a <b>market participant</b> receiving <b>system access service</b> under the <b>ISO tariff</b> , including a <b>generating unit</b> or an <b>electric distribution system</b> .	“ <b>point of supply</b> ” means the point at which electricity is transferred to <b>transmission facilities</b> from facilities owned by an <b>electricity market participant</b> receiving <b>system access service</b> under the <b>ISO tariff</b> , including a <b>generating unit</b> , <b>aggregated generating facility</b> or an <b>electric distribution system</b> .	
“ <b>pool participant</b> ” means a <b>market participant</b> who is registered to transact, listed in the <b>pool participant</b> list.	“ <b>pool participant</b> ” means an <b>electricity market participant</b> who is registered to transact, listed in the <b>pool participant</b> list.	
“ <b>ramp rate</b> ” means the rate at which a <b>pool asset</b> is able to change its level of production, in MW per minute, in response to a <b>dispatch</b> or <b>directive</b> .	“ <b>ramp rate</b> ” means the rate at which a <b>pool asset</b> is able to change its level of production <b>or consumption</b> , in MW per minute, in response to a <b>dispatch</b> or <b>directive</b> .	
“ <b>ramping</b> ” means changing the production of a generating <b>source asset</b> and begins at the effective time specified in the	“ <b>ramping</b> ” means changing the production of a generating <b>source asset or consumption of a load sink asset</b> , and begins at the effective	

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most current <b>dispatch</b> and continues until the time the <b>source asset</b> has reached the MW specified in the <b>dispatch</b> , plus or minus the <b>allowable dispatch variance</b> for that <b>source asset</b> .	time specified in the most current <b>dispatch</b> and continues until the time the <b>generating source asset or load sink asset</b> has reached the MW specified in the <b>dispatch</b> , plus or minus the <b>allowable dispatch variance</b> for that <b>generating source asset or load sink asset</b> .	
“ <b>system access service</b> ” means as defined in the <b>Act</b> means the service obtained by a <b>market participant</b> through a connection to the <b>transmission system</b> , and includes <b>ancillary services</b> access to capacity.	“ <b>system access service</b> ” means as defined in the <b>Act</b> means the service obtained by <del>a</del> <b>market participants</b> through a connection to the <b>transmission system</b> , and includes  (i) access to exchange electric energy and <b>ancillary services</b> , and (ii) <b>access to capacity</b> .	“Access to capacity” is not a defined or useful term. Capacity is simply a derivative of energy and ancillary services access. Item (ii) does not add value to this definition and the sub-section (ii) should be struck.
“ <b>transmission constraint rebalancing</b> ” means the delivery of energy from a <b>pool asset</b> on the <b>downstream constraint side</b> of a <b>transmission constraint</b> in response to that portion of an energy market <b>dispatch</b> it receives to restore the energy balance on the <b>interconnected electric system</b> due to measures taken to mitigate a <b>transmission constraint</b> .	“ <b>transmission constraint rebalancing</b> ” means the delivery of energy from a <b>pool asset</b> on the <b>downstream constraint side</b> of a <b>transmission market constraint</b> in response to that portion of an energy market <b>dispatch</b> it receives to restore the energy balance on the <b>interconnected electric system</b> due to measures taken to mitigate a <b>transmission market constraint</b> .	
“ <b>upstream constraint side</b> ” means, in relation to the transmission elements that comprise the <b>transmission constraint</b> , those elements of the <b>interconnected electric system</b> more proximate to the supply side of the <b>transmission constraint</b> than to the load or consumption side of the	“ <b>upstream constraint side</b> ” means, in relation to the transmission elements that comprise the <b>transmission market constraint</b> , those elements of the <b>interconnected electric system</b> more proximate to the supply side of the <b>transmission market constraint</b> than to the load or consumption side of the <b>transmission market constraint</b> .	

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transmission constraint.		

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<p>“<b>delist outage</b>” means a derate or an outage for a <b>source asset</b> or load <b>sink asset</b> associated with a temporary delist referred to in section 206.9 of the ISO rules, <i>Delisting</i>.</p>	
<p>“<b>dispatch tolerance</b>” means:</p> <ul style="list-style-type: none"> <li>(i) 1 MW for each <b>pool asset</b> with a <b>maximum capability</b> less than 5 MW;</li> <li>(ii) 5 MW for each <b>pool asset</b> with a <b>maximum capability</b> greater than or equal to 5 MW and less than or equal to 200 MW; or</li> <li>(iii) 10 MW for each <b>pool asset</b> with a <b>maximum capability</b> greater than 200 MW.</li> </ul>	<p>The CWG suggests adding a new category for even larger asset, e.g. greater 800 or 1,000 MW with 20 MW dispatch tolerance. 10MW of dispatch tolerance is insufficient for large units.</p> <p>A better way to manage dispatch tolerance in general would be to create a rule based on percentage of MC rather than creating these delineations.</p>
<p>“<b>electricity market participant</b>” means</p> <ul style="list-style-type: none"> <li>(i) any <b>person</b> that supplies, generates, transmits, distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or <b>ancillary services</b>, or</li> <li>(ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or <b>ancillary services</b></li> </ul>	
<p>“<b>supply obligation</b>” means for a fixed period of time, a <b>person’s</b> fixed price physical and financial obligations, in MW, that have the effect of reducing the <b>person’s</b> exposure to the <b>pool price</b> by the amount of the obligation.</p>	<p>The period of time does not have to be fixed, <i>i.e.</i> it could be effective until canceled by one party. This is fine as long as the deal is in effect on the relevant date. The price for a physical and financial obligation does not have to be fixed as long as it reduces the pool price exposure, e.g. a heat rate deal.</p>
<p>“<b>transmission market constraint</b>” means an exceedance of a reliability limit on 1 or more</p>	

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<p>elements of the <b>transmission system</b>, where:</p> <ul style="list-style-type: none"> <li>(iii) the <b>ISO</b> must take action to prevent or mitigate the exceedance; and</li> <li>(iv) results in an impact to the normal economic merit operation of generation, load, or <b>interchange transactions</b>,</li> </ul> <p>excluding a circumstance where the capability limits referenced in Section 303.2 of the <b>ISO rules</b>, <i>Available Transfer Capability</i> are exceeded.</p>	

Proposed Removed Terms and definitions	
Proposed Removed Terms and definitions	Stakeholder comments
<p>“<b>transmission constraint</b>” means a limitation imposed by one (1) or more transmission elements to normal economic merit operation of generation, load and <b>interchange transactions</b> or to the flow of electrical energy from one part of the <b>interconnected electric system</b> to the other.</p> <p>[replaced with “<b>transmission market constraint</b>”]</p>	
<p>“<b>long term adequacy (LTA)</b>” means the ability of future electric system energy supply to meet expected aggregate electrical demand requirements over several years.</p> <p>[replaced with <b>resource adequacy standard</b>]</p>	
<p>“<b>LTA metrics</b>” means all <b>adequacy</b> information related items, including historical data and forecasts that the <b>ISO</b> will regularly capture, calculate and report on.</p>	
<p>“<b>LTA threshold</b>” means the magnitude measured with respect to one of the <b>LTA metrics</b> that, if exceeded, would indicate a need for the consideration of preventative action.</p>	
<p>“<b>LTA threshold actions</b>” means out-of-market measures the <b>ISO</b> may choose to implement to remedy an actual or impending <b>LTA</b> issue, where for the purpose of this definition, out-of-market measures are actions that either create revenue or cost impacts outside the energy market for <b>market participants</b>. <b>LTA threshold actions</b> are intended to preserve LTA until new generation capacity is built or load decreases.</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 ISO rule definitions] relates to the capacity market and why or why not	
2	whether you agree that [the proposed ISO rule definitions] 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 ISO rule definitions] and whether, in your view, [the proposed ISO rule definitions] meets the objective or purpose	
4	how, in your view, [the proposed ISO rule definitions] 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 ISO rule definitions]	
6	whether you agree with [the proposed ISO rule definitions] 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 [the proposed ISO rule definitions]	
8	whether you agree that the proposed provisional rule definitions supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	

Item #		Stakeholder comments
9	whether you agree that the proposed provisional rule definitions supports the public interest and why or why not	

**Proposed New Set 3 Capacity Market Terms and Definitions**

<b>Period of Comment:</b>	September 21, 2018 through October 9, 2018	<b>Contact:</b>	Kris Aksomitis
<b>Comments From:</b>	The Cogeneration Working Group, as represented by Power Advisory LLC, is comprised of the following members: (1) TransCanada; (2) Suncor; (3) Cenovus; (4) Canadian Natural (CNRL); (5) Dow (6) Imperial; (7) MEG Energy; (8) Husky; (9) Nova Chemicals Corporation; (10) Syncrude; (11) Lafarge; and (12) InterPipeline. This submission represents the consensus view of the group. Individual member companies may also make independent submissions.	<b>Phone:</b>	587-894-7150
<b>Date [yyyy/mm/dd]:</b>	2018-10-09	<b>Email:</b>	kaksomitis@poweradvisoryllc.com

***Please provide comments relating to the proposed term and definition in the corresponding box. Please include any views on whether the language clearly articulates the purpose of the term and provide any proposed alternative wording by blacklining the proposed language below.***

Proposed Term and definition	Stakeholder comments
<p>“<b>resource adequacy standard</b>” means the minimum level of expected unserved energy established by Government of Alberta in regulation.</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 ISO rule definition] relates to the capacity market and why or why not	
2	whether you agree that [the proposed ISO rule definition] 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 ISO rule definition] and whether, in your view, [the proposed ISO rule definition] meets the objective or purpose	
4	how, in your view, [the proposed ISO rule definition] 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 ISO rule definition]	
6	whether you agree with [the proposed ISO rule definition] 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 [the proposed ISO rule definition]	
8	whether you agree that the proposed provisional rule definition supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	

Item #		Stakeholder comments
9	whether you agree that the proposed provisional rule definition supports the public interest and why or why not	