

Proposed New Set 1 and 2 Capacity Market Terms and Definitions

Period of Comment:	September 21, 2018	through	October 9, 2018	Contact:	Grant Berry
Comments From:	Capital Power			Phone:	780-392-5294
Date [yyyy/mm/dd]:	2018/10/09			Email:	gberry@capitalpower.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
“ base auction ” means the first auction for capacity for an obligation period .	Capital Power has no comments at this time.
“ capacity ” as defined in the Act , with respect to the capacity market means the ability to supply electric energy or reduce electric energy consumption as measured in MW.	Capital Power has no comments at this time.
“ capacity block ” means one of the price and quantity pairs the ISO allocates to an asset for a base auction or rebalancing auction for the purposes of submitting an offer or bid in the capacity market.	Capital Power has no comments at this time.
“ capacity commitment ” means an obligation to deliver, during an obligation period , a volume of an offer that has cleared in a base auction or a rebalancing auction .	Capital Power has no comments at this time.
“ capacity market participant ” means a person registered with the ISO in accordance with Section 201.10 of the ISO rules , <i>Capacity Market Participant Registration</i> , for the capacity market.	Capital Power believes that the requirements of Section 201.10 and specifically what entities must register as a “capacity market participant” is unclear and thus the definition of “capacity market participant” is unclear. It is clear that Section 201.10 applies to legal owners of, or persons with, assets that meet the minimum uniform capacity value or have qualified to deliver capacity pursuant to Section 206.1, and thus these parties must register as “capacity market participants”. It is not clear, however, whether persons trading, exchanging, purchasing or selling capacity must also register as “capacity market participants”. Furthermore, it is not clear whether a broker, brokerage or forward exchange that trades or facilitates the trading of capacity, or an “agent” pursuant to Section 201.11 are considered “capacity market participants”. Such clarification should be provided in the definition of “capacity market participant” or in the rules referenced above.

Proposed Terms and definitions	Stakeholder comments
<p>“delist outage” means a derate or an outage for a source asset or load sink asset associated with a temporary delist referred to in section 206-9-1.15 of the ISO rules, <i>Delisting</i>.</p>	<p>Capital Power believes that the definition of “delist outage” should be enhanced to include reference to the obligations and limitations of a delisted asset in the energy and capacity market, including, but not limited to, must offer obligations in the energy market and eligibility for asset substitution and volume reallocation in the capacity market.</p> <p>Additionally, to ensure distinction between temporary delisting (i.e. a “delist outage”) permanent delisting (i.e. retirement) the term “permanent delist” should be added to the list of defined terms for the capacity market.</p>
<p>“electricity market participant” as defined in the Act, means</p> <ul style="list-style-type: none"> (i) any person that supplies, generates, transmits, distributed, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services, or (ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or ancillary services. 	<p>Capital Power has no comments at this time.</p>
<p>“firm consumption level” means that a load asset will consume a maximum volume of energy in MW during supply shortfall in an obligation period.</p>	<p>Capital Power believes that this definition should also reference the energy market dispatch and offer obligations of a “firm consumption level” resource.</p>
<p>“guaranteed load reduction” means that a load asset will reduce consumption by a volume of energy in MW.</p>	<p>Capital Power believes that this definition should also reference the energy market dispatch and offer obligations of a “guaranteed load reduction” resource.</p>
<p>“new capacity” means capacity from an asset:</p> <ul style="list-style-type: none"> (i) that has not had an offer clear in a base auction or rebalancing auction; and (ii) in the case of a generating unit or aggregated generating facility, that has not completed energization and commissioning prior to the obligation period. 	<p>Capital Power believes that the intention of item (ii) is to limit the ability of new assets that do not clear their first capacity auction, but that build (i.e. energize and commission) anyway to qualify as new capacity in subsequent auctions. Capital Power is concerned that the way (ii) is currently written may also unintentionally limit the ability of new assets that do clear the capacity auction to energize and commission early (i.e. prior to the obligation period) and still qualify as “new capacity” for the obligation term. This definition should be revised to clarify that new cleared capacity that energizes and commissions prior to its first obligation period is still considered “new capacity” for that obligation period.</p>
<p>“obligation period” means a period of equal length for all resources during which a resource is committed to deliver capacity; a 12-month period running continuously from November 1 to and including, October 31 of the following year.</p>	<p>The definition of “obligation period” must include reference to the critical fact that the obligation period will be the same for all resources (new and existing). Equal term length is a critical design element and honors the commitments made by the Government of Alberta with respect treating existing investments fairly and is critical to ensuring a level playing field for new and existing assets.</p> <p>Additionally, it should be clear that the obligation period ends on October 31 at 11:59 pm and not 12:00 AM;</p>

Proposed Terms and definitions	Stakeholder comments
	October 31 is last day of the obligation period, not October 29. See proposed changes to the left.
<p>“rebalancing auction” means an auction for capacity conducted after a base auction for an <u>the same</u> obligation period.</p>	Capital Power proposes the changes to the left for clarity.
<p>“transmission market constraint” means an exceedance of a reliability limit on 1 or more elements of the transmission system, where:</p> <ul style="list-style-type: none"> (i) the ISO must take action to prevent or mitigate the exceedance; and (ii) results in an impact to the normal economic merit operation of generation, load, or interchange transactions, <p>excluding a circumstance where the capability limits referenced in Section 303.2 of the ISO rules, <i>Available Transfer Capability</i> are exceeded.</p>	<p>Capital Power does not support use of the qualifier “market” in the term “transmission <u>market</u> constraint” and believes it is unnecessary. The qualifier should be removed, and the term should remain as “transmission constraint”. It is unclear to Capital Power what would distinguish a “transmission market constraint” from a “transmission constraint” as currently defined in the AESO’s Consolidated Authoritative Document Glossary. If the AESO disagrees, please clarify and provide rationale for the change.</p> <p>In either case, clarity is required with respect to the impact of transmission curtailments on an asset’s uniform capacity value calculated pursuant to Section 206.3 as well as its availability and delivery assessments pursuant to Section 206.8. It is Capital Power’s understanding, based on its participation in the AESO’s capacity market design working groups as well as its reading of CMD Final, that transmission curtailment risk in the capacity market with respect to an asset’s uniform capacity value as well as its availability and delivery assessments will be borne by the AESO (with the exception of transmission outages where a capacity asset is electrically disconnected from the transmission system as result of its own actions). Hours in which a capacity asset was unable to deliver its committed capacity volume due to a transmission system outage would not be included in the resource’s uniform capacity value calculated pursuant to Section 206.3 or its availability and delivery assessments pursuant to Section 206.8. If the transmission outage was the result of a capacity asset being electrically disconnected from the transmission system as result of its own actions, then these hours would be included and count against the asset’s uniform capacity value calculation as well as its performance assessment.</p> <p>This approach makes sense because it recognizes that the AESO – in its role as the transmission system planner – is the party best able to manage the risk of transmission curtailments and it keeps capacity assets economically whole for curtailment risks outside of their control. Capital Power is concerned that drafting language in Sections 206.3 and 206.8 as well as proposed changes to the definition of “acceptable operational reason” in the energy market do not reflect the above understanding. To help clarify the impact of transmission curtailments on a capacity asset’s uniform capacity value and performance assessment, Capital Power proposes adding the term “transmission system outage” to the list of defined capacity market terms in addition to the concept of “transmission (market) constraint”</p>
<p>“transmission system outage” means an outage on the transmission system that is <u>beyond the control of an impacted asset and is not the result of an asset being electrically disconnected from the transmission system due to its own actions.</u></p>	As discussed above, Capital Power suggests adding the term “transmission system outage” to the list of defined capacity market terms in addition to the concept of “transmission (market) constraint” to increase clarity regarding a capacity asset’s transmission curtailment risk. See proposed definition to the left.

Proposed Terms and definitions	Stakeholder comments
	<p>If accepted, this new term should be added to the following sections as follows:</p> <p>Section 206.3 3(3):</p> <p>(3) The ISO must, if it determines that the asset was impacted by a <u>transmission market constraint or transmission system outage</u> during an hour in the asset’s historical data set, add the volume that was curtailed to the metered volume in that hour for the purposes of calculating the uniform capacity value for the asset in accordance with subsection 5(2).</p> <p>Section 206.8 7(1)(a)(iv):</p> <p><i>(iv) in the case of an asset that was impacted by a transmission market constraint or transmission system outage, the volume that was curtailed;</i></p> <p>Section 206.8 11(2)(a):</p> <p><i>(a) in the case of an asset that was impacted by a transmission market constraint or transmission system outage, the volume that was curtailed will be added to the delivery volume identified in subsection 11(1);</i></p>
<p>“uniform capacity value” means a <u>uniform-fungible</u> measure, in MW, of an asset’s ability to provide capacity, <u>represented in MW</u>.</p>	<p>A critical component of the concept of “uniform capacity value” is that each measure of “uniform capacity value” must be mutually interchangeable. Replacing the term “uniform” with the term “fungible” in the proposed definition (see left) ensures consistency with this concept and that that one measure of “uniform capacity value” will be identical to, and able to replace or be replaced by, another measure of “uniform capacity value”, regardless of resource type.</p> <p>Additionally, the definition should state that “uniform capacity value” is “represented in MW” as opposed “a measure, in 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 ISO rule definitions] relates to the capacity market and why or why not	<p>Capital Power agrees that the above proposed ISO rule definitions relate to the capacity market and proposes that the following additional terms be added to the list of proposed new capacity market terms and definitions:</p> <ul style="list-style-type: none"> • “availability factor” (Sections 206.3 and 206.8); • “avoidable costs” (Sections 201.15 and 206.7); • “capacity factor” (Sections 206.3 and 206.8); • “cost assessment” (Section 206.3); • “firm transmission” (Sections 201.13, 206.1, 206.3 and 206.8); • “performance factor” (Section 206.3); and • “permanent delist” (Section 201.15). <p>Capital Power believes that the above terms should be defined to provide greater clarity to market participants regarding the requirements of the capacity market rules. Capital Power reserves the right to comment on proposed definitions for the above terms once released.</p>
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	<p>Capital Power does not see any rationale for prescribing a fixed term for the proposed ISO rule definitions and as such believes that the proposed definitions should <u>not</u> be in effect for a fixed term. This will provide needed certainty to market participants regarding the longevity of the capacity market rules and design.</p>
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	<p>Capital Power has no comments at this time.</p>
4	how, in your view, [the proposed ISO rule definitions] affects the performance of the capacity market and the electricity market	<p>Capital Power has no comments at this time.</p>
5	your views on any analysis conducted or commissioned by the AESO supporting [the proposed ISO rule definitions]	<p>Capital Power is not aware of any analysis conducted or commissioned by the AESO supporting the proposed ISO rule definitions. As such, Capital Power has no comments at this time.</p>

Item #		Stakeholder comments
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	Capital Power has no comments at this time.
7	whether you would suggest any alternatives to [the proposed ISO rule definitions]	See Capital Power's comments above.
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	Capital Power has no comments at this time.
9	whether you agree that the proposed provisional rule definitions supports the public interest and why or why not	Capital Power has no comments at this time.

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

Period of Comment:	September 21, 2018	through	October 9, 2018	Contact:	Santi Churphongphun
Comments From:	Capital Power			Phone:	(403) 717-4639
Date [yyyy/mm/dd]:	2018/10/09			Email:	schurphongphun@capitalpower.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>“acceptable operational reason” means, any one (1) or more of the following:</p> <ul style="list-style-type: none"> (i) a circumstance related to the operation of a generating source asset which if it operated could reasonably be expected to affect the safety of the source asset, the environment, personnel working at the source asset or the public; (ii) re-positioning a generating source asset assets, within the energy market due to the need to meet a dispatch given to that source asset from the ISO to serve the stand-by operating reserves market; (iii) re-positioning a generating source asset within the energy market to manage physical or operational constraints associated with the source asset; (iv) re-positioning a pool asset that is an import asset or an export asset within the energy market to manage physical or operational constraints associated with an interconnection or a neighbouring balancing authority; 	<p>“acceptable operational reason” means, any one (1) or more of the following:</p> <ul style="list-style-type: none"> (i) a circumstance related to the operation of a generating source asset or load sink asset which if it operated could reasonably be expected to affect the safety of the source source asset, the environment, personnel working at the source source asset or the public; (ii) re-positioning a generating source asset assets or load sink asset, within the energy market due to the need to meet a dispatch given to that source-asset from the ISO to serve the stand-by operating reserves market; (iii) re-positioning a generating source asset or load sink asset within the energy market to manage physical or operational constraints associated with the source-asset; (iv) re-positioning a pool asset re-positioning a pool asset that is an import asset or an export asset within the energy market to manage if all or a portion of the requested transmission service cannot be procured, or the transmission service is curtailed by any 	<p>Capital Power is supportive of ensuring that the availability of a source asset is accurately reported but believes that the addition of subsection (vii)(b) fails to achieve this purpose and creates a number of issues and unintended consequences. For these reasons, outlined in detail below, Capital Power believes that subsection (vii)(b) should be removed, or, in the alternative, revised to address the issues identified below.</p> <p>Subsection (vii) is inconsistent with the current definition of “available capability” (“AC”).</p> <p>The situations described in (vii) (a) and (b) do not necessarily establish that a source asset was physically incapable of generating output. Rather, the operational limitation, in this instance, is the ability to transmit output or for the system to receive it. Therefore, the proposed section (vii) is inconsistent with the definition of AC and could result in AC data that is not reflective of “the maximum MW that the source asset is physically capable of providing” among other unintended consequences.</p> <p>Changes to the definition of AC or data used to track AC may inadvertently impact other aspects of the market that rely on availability information.</p>

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
<p>(v) a circumstance directly resulting in the generating source asset not being capable of operation, which circumstance was solely caused by an occurrence of force majeure; or</p> <p>(vi) re-positioning a generating source asset for electric energy that is:</p> <p>a) produced on the property of which a person is the owner or a tenant; and</p> <p>b) consumed solely by that person and solely on that property.</p>	<p>transmission service provider other than the ISO</p> <p>(iv) physical or operational constraints associated with an interconnection or a neighbouring balancing authority;</p> <p>(v) a circumstance directly resulting in the generating source asset or load sink asset not being capable of operation, which circumstance was solely caused by an occurrence of force majeure; or</p> <p>(vi) re-positioning a generating source asset for electric energy that is:</p> <p>(a) produced on the property of which a person is the owner or a tenant; and</p> <p>(b) consumed solely by that person and solely on that property;-</p> <p>(vii) re-positioning a generating source asset 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 source asset, or to the flow of electrical energy from the generating source asset from one part of the electric distribution system to the other; or</p> <p>(b) a transmission outage that results in the generating source asset being electrically disconnected from the transmission system; or</p> <p>(viii) re-positioning a load sink asset within the energy market to reflect a capacity commitment.</p>	<p>The AESO relies on the AC information submitted by market participants to perform various tasks established under the current ISO Rules and will be an input on important future capacity market-related activities. These include the performance assessment in calculating the annual refund as outlined in ISO Rule Section 505.2 - <i>Performance Criteria for Refund of Generating Unit Owner's Contribution</i> or the calculation of the uniform capacity value in the capacity market.</p> <p>At subsection 3(3) of ISO rule 505.2, the hourly availability of a generating facility is based (in part) on AC-related data. To the extent AC restatements will be required to reflect transmission outages beyond the control of a market participant, AC information may not accurately reflect the actual availability of the source asset particularly if the facility remains physically capable of generating output. Without adjustments accounting for such reductions in AC due to these forms of transmission outages, the results of the availability assessment outlined under ISO Rule 505.2 stand to misrepresent the actual availability of the generating unit. For this reason, Capital Power believes that subsection 7 of current ISO Rule 505.2 provides the ISO the ability to adjust hourly AC where it is affected by events outside the control of the owner of a generation facility. However, proposed ISO rule 206.3 - <i>Uniform Capacity Value Determination</i> has no such provision. Therefore, Capital Power requests the AESO confirm that the AC information submitted as a result of satisfying proposed AOR definition section (vii)(b), will be adjusted as part of determining an asset's uniform capacity value.</p> <p>The AESO should track limitations on an asset's ability to transmit output or for the system to receive it separately from AC.</p> <p>To ensure that transmission constraints and transmission outages outside of the control of an operator do not adversely impact an asset's uniform capacity value calculation or performance assessment (as per Capital Power's understanding of CMD Final – see Capital Power's comments regarding the proposed "transmission market constraint" definition) the AESO must track data related to limitations on an asset's ability to deliver energy due to transmission constraints and transmission outages. Capital Power believes that, for the reason outlined above, tracking this through an</p>

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
		AOR in ETS is not the appropriate method. The AESO, as the system operator, should be responsible for tracking this data and should establish a system, separate from AORs in ETS to collect this information and share it with market participants.
<p>“adequacy” means the ability of the interconnected electric system to supply the aggregate electrical demand and energy requirements of market participants receiving system access service, taking into account planned outages and reasonably expected delayed forced outages and automatic forced outages of system elements.</p>	<p>“adequacy” means the ability of the interconnected electric system to supply the aggregate electrical demand and energy requirements of electricity market participants receiving system access service, taking into account delist outages, planned outages and reasonably expected delayed forced outages and automatic forced outages of system elements.</p>	Capital Power has no comments at this time.
<p>“agent” includes:</p> <ul style="list-style-type: none"> (i) a representative of a pool participant duly appointed and authorized by the pool participant under ISO rule 1.8 to act on behalf of and bind the pool participant with regard to transactions and other activities on the Energy Trading System and the automated dispatch and messaging system; or (ii) a representative of a market participant or a pool participant, as the case may be, duly appointed and authorized to act on behalf of and bind that person with regard to other ISO activities, procedures and requirements, which such appointment is made under and in accordance with the applicable ISO rules, authorizations and procedures. 	<p>“agent” includes:</p> <ul style="list-style-type: none"> (i) a representative of a pool participant duly appointed and authorized by the pool participant under ISO rule 1.8 Section 201.2 of the ISO rules, Appointment of Agent to act on behalf of and bind the pool participant with regard to transactions and other activities on the Energy Trading System and the automated dispatch and messaging system; or (ii) a representative of a market participant or a pool participant, as the case may be, duly appointed and authorized to act on behalf of and bind that person with regard to other ISO activities, procedures and requirements, which such appointment is made under and in accordance with the applicable ISO rules, authorizations and procedures. 	Capital Power has no comments at this time.
<p>“allowable dispatch variance” means:</p> <ul style="list-style-type: none"> (i) for each generating source asset, other than a wind aggregated generating facility, as measured from the dispatch quantity: <ul style="list-style-type: none"> (a) plus or minus five (5) MW for a generating source asset with a maximum capability of two hundred (200) 	<p>“allowable dispatch variance” means:</p> <ul style="list-style-type: none"> (i) for each generating source asset, other than a wind or solar aggregated generating facility, as measured from the dispatch quantity, plus or minus the dispatch tolerance, in MW;: <ul style="list-style-type: none"> (a) plus or minus five (5) MW for a generating source asset 	The provision at (ii)(b) appears to be incomplete. Capital Power suggests the tracked change language in the adjacent cell to ensure clarity and consistency with proposed amended ISO rule 203.4 – <i>Delivery Requirements for Energy</i> .

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

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
	<p>dispatch quantity.</p> <p>(ii) for each load sink asset that is providing a firm consumption level as measured between:</p> <p>a) the qualified baseline minus the dispatch quantity plus the dispatch tolerance, and</p> <p>b) 0 MW.</p> <p>(iii) for each load sink asset providing guaranteed load reduction as measured from the dispatch quantity, plus or minus the dispatch tolerance, in MW.</p>	
<p>“available capability” means:</p> <p>(i) for a generating source asset, the maximum MW that the source asset is physically capable of providing; or</p> <p>(ii) for an import source asset, the MW that the pool participant submits in an offer.</p>	<p>“available capability” means:</p> <p>(i) for a generating source asset or load sink asset, the maximum MW that the source asset is physically capable of providing <u>or withdrawing</u>; or</p> <p>(ii) for an import source asset, the MW that the pool participant submits in an offer.</p>	<p>By adding load sink assets to the definition, Capital Power submits that the proposed language could be improved by specifying that these assets withdraw from the system. See the adjacent cell for proposed wording changes.</p>
<p>“bid” means, in respect of a pool asset in a settlement interval, a pool participant submission to purchase:</p> <p>(i) electric energy and includes all of the operating blocks the pool participant uses for that submission; or</p> <p>(ii) from applicable Alberta markets.</p>	<p>“bid” means:;</p> <p>(i) in respect of a pool asset in a settlement interval, a pool participant submission to purchase:</p> <p>(+)a) electric energy and includes all of the operating blocks the pool participant uses for that submission; or</p> <p>b) operating reserves from applicable Alberta markets; or</p> <p>(ii) in respect of an asset in a rebalancing auction, a capacity market participant’s submission to buy back all or a portion of its capacity commitment, and includes all of the capacity blocks the capacity market participant uses for that submission.</p>	<p>No bid provisions from a pool participant for a pool asset exist in current ISO Rule 205.1 – <i>Offers for Operating Reserve</i>. This is consistent with Capital Power’s understanding that only the AESO purchases operating reserves from applicable Alberta markets. However, (i)(b) suggests that a pool participant may make submissions to purchase reserves. Therefore, Capital Power suggests that the definition for ‘bid’ and ISO rule 205.1 be made consistent with the existing operating reserve market framework by clarifying the ‘bid’ definition to state that only the AESO submits bids for the purchase of operating reserves or simply deleting (i)(b).</p>

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
<p>“business day” means a day other than:</p> <ul style="list-style-type: none"> (i) a holiday during which banks in Alberta are generally closed; (ii) Saturday; or (iii) Sunday. 	<p>“business day” means as defined in the Act means a day other than a Saturday or a holiday as defined in the Interpretation Act.</p> <p>a day other than:</p> <ul style="list-style-type: none"> (i) a holiday during which banks in Alberta are generally closed; (ii) Saturday; or (iii) Sunday. 	<p>Capital Power has no comments at this time.</p>
<p>“constraint effective factor” means a ratio, based on the results of load flow studies conducted by the ISO, of the change in the flow of electric energy through a transmission constraint to a change in energy production, energy consumption or an electric energy flow across an interconnection.</p>	<p>“constraint effective factor” means a ratio, based on the results of load flow studies conducted by the ISO, of the change in the flow of electric energy through a transmission market constraint to a change in energy production, energy consumption or an electric energy flow across an interconnection.</p>	<p>See comments in response to the proposed definition of “transmission market constraint.”</p>
<p>“downstream constraint side” means, in relation to the transmission elements that comprise the transmission constraint, those elements of the interconnected electric system more proximate to the load or consumption side of the transmission constraint than to the supply side of the transmission constraint.</p>	<p>“downstream constraint side” means, in relation to the transmission elements that comprise the transmission market constraint, those elements of the interconnected electric system more proximate to the load or consumption side of the transmission market constraint than to the supply side of the transmission market constraint.</p>	<p>See comments in response to the proposed definition of “transmission market constraint.”</p>
<p>“flexible block” means operating block in an energy offer for which the ISO may issue a dispatch for full or partial amounts of MW.</p>	<p>“flexible block” means:</p> <ul style="list-style-type: none"> (i) an operating block in an energy offer or bid for which the ISO may issue a dispatch for full or partial amounts of MW; or (ii) a capacity block in an offer or bid for capacity that the ISO may partially or fully clear in a base auction or rebalancing auction. 	<p>Capital Power has no comments at this time.</p>
<p>“generating asset steady state” means the state of operation that begins the first 10 minute clock period following the period in which a generating source asset’s output has reached the</p>	<p>“generating asset steady state” means the state of operation that begins the first 10 minute clock period following the period in which a generating source asset’s output or a load sink</p>	<p>Capital Power has no comments at this time.</p>

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
MW specified in an energy market dispatch , plus or minus the allowable dispatch variance for that generating source asset .	asset's consumption has reached the MW specified in an energy market dispatch , plus or minus the allowable dispatch variance for that generating source asset or load sink asset .	
<p>“incremental generation costs” means, where the ISO has issued a directive:</p> <ul style="list-style-type: none"> (i) for energy from a long lead time asset; or (ii) to cancel, in the case of a generating source asset, any one (1) or more of a planned outage, a delayed forced outage or an automatic forced outage, requiring that a long lead time asset or a generating source asset, be made available to, or to actually, operate, exchange electric energy or provide ancillary services, those reasonable costs incurred that are reasonably attributed to compliance with the directive and which would have been avoided but for the directive, and include: <ul style="list-style-type: none"> (iii) in the case of compliance with a directive for energy from a long lead time asset: <ul style="list-style-type: none"> (a) the actual costs of all variable charges from Rate STS of the ISO tariff, including any applicable loss factors charge or credit; (b) variable operational and maintenance charges; (c) fuel costs to start and run the long lead time asset or the generating source asset; and (d) other related reasonable costs; (iv) in the case of compliance with a directive canceling a planned outage, a delayed forced outage or an automatic forced outage for a generating source asset, those costs incurred: <ul style="list-style-type: none"> (a) to plan, prepare for and execute the outage, from initial 	<p>“incremental generation costs” means, where the ISO has issued a directive:</p> <ul style="list-style-type: none"> (i) for energy from a long lead time asset; or (ii) to cancel, in the case of a generating source asset, any one (1) or more of a planned outage, a delist outage, a delayed forced outage or an automatic forced outage, requiring that a long lead time asset or a generating source asset, be made available to, or to actually, operate, exchange electric energy or provide ancillary services, those reasonable costs incurred that are reasonably attributed to compliance with the directive and which would have been avoided but for the directive, and include: <ul style="list-style-type: none"> (iii) in the case of compliance with a directive for energy from a long lead time asset: <ul style="list-style-type: none"> (a) the actual costs of all variable charges from Rate STS of the ISO tariff, including any applicable loss factors charge or credit; (b) variable operational and maintenance charges; (c) fuel costs to start and run the long lead time asset or the generating source asset; and (d) other related reasonable costs; (iv) in the case of compliance with a directive canceling a planned outage, a delist outage, a delayed forced outage or an automatic forced outage for a generating source asset, those costs incurred: <ul style="list-style-type: none"> (a) to plan, prepare for and execute the outage, from initial 	Capital Power has no comments at this time.

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
<p>planning and inception to the date of the directive canceling the outage;</p> <p>(b) subsequent to the date of the directive cancelling the outage and in accordance with good electric industry practice;</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 source asset 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 related to participation in the energy or ancillary services market by the source asset which is the subject of the directive; and</p> <p>(e) as other related reasonable costs.</p>	<p>planning and inception to the date of the directive canceling the outage;</p> <p>(b) subsequent to the date of the directive cancelling the outage and in accordance with good electric industry practice;</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 source asset 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 related to participation in the energy or ancillary services market by the source asset which is the subject of the directive; and</p> <p>(e) as other related reasonable costs.</p>	
<p>(i) “inflexible block” means operating block in an energy offer for which the ISO may issue a dispatch for only the full amount of MW in the operating block.</p>	<p>“inflexible block” means:</p> <p>(i) an operating block in an energy offer or bid for which the ISO may issue a dispatch for only the full amount of MW in the operating block; or</p> <p>(ii) a capacity block in an offer or bid for capacity that the ISO may not partially clear in a base auction or rebalancing</p>	<p>To the extent load sink assets also may submit inflexible blocks, Capital Power suggests that bids be included as part of the definition.</p>

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
	auction.	
<p>“market participant” as defined in the Act means:</p> <ul style="list-style-type: none"> (i) any person that supplies, generates, transmits, distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services; or (ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or ancillary services. 	<p>“market participant” as defined in the Act means an electricity market participant or a capacity market participant.:</p> <p>(i) any person that supplies, generates, transmits, distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services; or</p> <p>(ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or ancillary services.</p>	<p>According to the <i>Act</i>, a “capacity market participant” means a capacity market participant within the meaning of the ISO rules. Therefore, in Capital Power’s view, the proposed definition is a circular reference. Instead, consider explicitly defining the term “capacity market participant.”</p>
<p>“maximum capability” means:</p> <ul style="list-style-type: none"> (i) for a generating unit or aggregated generating facility, the maximum MW that it is physically capable of providing under optimal operating conditions while complying with all applicable ISO rules and terms and conditions of the ISO tariff; or (ii) for a source asset that is an import asset, the available capability. 	<p>“maximum capability” means:</p> <ul style="list-style-type: none"> (i) for a generating unit or aggregated generating facility, the maximum MW that it is physically capable of providing under optimal operating conditions while complying with all applicable ISO rules and terms and conditions of the ISO tariff; or (ii) for a source asset that is an import asset, the available capability. (iii) for a load sink asset, the capacity that a load sink asset is capable of providing during an obligation period. 	<p>Capital Power has no comments at this time.</p>
<p>“offer” means, in respect of a pool asset in a settlement interval, a pool participant submission to sell:</p> <ul style="list-style-type: none"> (i) electric energy or dispatch down service and includes all of the operating blocks the pool participant uses for that submission; or (ii) to applicable Alberta markets. 	<p>“offer” means:;</p> <ul style="list-style-type: none"> (i) in respect of a pool asset in a settlement interval, a pool participant submission to sell, updated to reflect mitigation under Section 203.5 of the ISO Rules as applicable: (i)a electric energy or dispatch down service and includes all of the operating blocks the pool participant uses for that submission; or 	<p>Capital Power suggests adding the specific ISO rule for ease of reference to the term mitigation since it is not defined.</p>

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
	<p>(ii)(b) operating reserves to applicable Alberta markets; or.</p> <p>(ii) in respect of an asset in a base auction or rebalancing auction, a capacity market participant's submission to sell capacity and includes all of the capacity blocks the capacity market participant uses for that submission;</p>	
<p>“operational deviation” means:</p> <p>(i) a generating source asset is unable to comply with the ramping requirements set out in Section 4 of subsection 203.4 of the ISO rules, Delivery Requirements for Energy; or</p> <p>(ii) source asset operating in generating asset steady state varies outside its allowable dispatch variance, due to force majeure or any other circumstances related to the operation of the generating source asset which could reasonably be expected to affect the available capability or safety of the generating source asset, third party facilities, contracts or arrangements, the environment, personnel working at the generating source asset or the public.</p>	<p>“operational deviation” means:</p> <p>(i) a generating source asset or load sink asset is unable to comply with the ramping requirements set out in Section 4 of subsection 203.4 of the ISO rules, Delivery Requirements for Energy; or</p> <p>(ii) a generating source asset or load sink asset operating in generating asset steady state varies outside its allowable dispatch variance, due to force majeure or any other circumstances related to the operation of the generating source asset or load sink asset which could reasonably be expected to affect the available capability or safety of the generating source asset, load sink asset, third party facilities, contracts or arrangements, the environment, personnel working at the generating source asset, load sink asset or the public.</p>	Capital Power has no comments at this time.
<p>“planned outage” means the full or partial unavailability of a facility which is anticipated as part of a legal owner's regular maintenance, including for the purposes of construction, commissioning or testing, and occurs as a result of a deliberate manual action.</p>	<p>“planned outage” means the full or partial unavailability of a facility which is anticipated as part of a legal owner's regular maintenance, including for the purposes of construction, commissioning or testing, and occurs as a result of a deliberate manual action, but excludes a delist outage.</p>	Capital Power has no comments at this time.
<p>“point of delivery” means the point at which electricity is transferred from transmission facilities to facilities owned by a market participant receiving system access service under the ISO tariff, including an electric distribution system.</p>	<p>“point of delivery” means the point at which electricity is transferred from transmission facilities to facilities owned by an electricity market participant receiving system access service under the ISO tariff, including an electric distribution system.</p>	Capital Power has no comments at this time.

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
<p>“point of supply” means the point at which electricity is transferred to transmission facilities from facilities owned by a market participant receiving system access service under the ISO tariff, including a generating unit or an electric distribution system.</p>	<p>“point of supply” means the point at which electricity is transferred to transmission facilities from facilities owned by an electricity market participant receiving system access service under the ISO tariff, including a generating unit, aggregated generating facility or an electric distribution system.</p>	<p>Capital Power has no comments at this time.</p>
<p>“pool participant” means a market participant who is registered to transact, listed in the pool participant list.</p>	<p>“pool participant” means an electricity market participant who is registered to transact, listed in the pool participant list.</p>	<p>Capital Power has no comments at this time.</p>
<p>“ramp rate” means the rate at which a pool asset is able to change its level of production, in MW per minute, in response to a dispatch or directive.</p>	<p>“ramp rate” means the rate at which a pool asset is able to change its level of production or consumption, in MW per minute, in response to a dispatch or directive.</p>	<p>Capital Power has no comments at this time.</p>
<p>“ramping” means changing the production of a generating source asset and begins at the effective time specified in the most current dispatch and continues until the time the source asset has reached the MW specified in the dispatch, plus or minus the allowable dispatch variance for that source asset.</p>	<p>“ramping” means changing the production of a generating source asset or consumption of a load sink asset, and begins at the effective time specified in the most current dispatch and continues until the time the generating source asset or load sink asset has reached the MW specified in the dispatch, plus or minus the allowable dispatch variance for that generating source asset or load sink asset.</p>	<p>Capital Power has no comments at this time.</p>
<p>“system access service” means as defined in the Act means the service obtained by a market participant through a connection to the transmission system, and includes ancillary services access to capacity.</p>	<p>“system access service” means as defined in the Act means the service obtained by a-market participants through a connection to the transmission system, and includes</p> <ul style="list-style-type: none"> (i) access to exchange electric energy and ancillary services, and (ii) access to capacity. 	<p>Capital Power has no comments at this time.</p>
<p>“transmission constraint rebalancing” means the delivery of energy from a pool asset on the downstream constraint side of a transmission constraint in response to that portion of an energy market dispatch it receives to restore the energy balance on the interconnected electric system due to measures taken</p>	<p>“transmission constraint rebalancing” means the delivery of energy from a pool asset on the downstream constraint side of a transmission market constraint in response to that portion of an energy market dispatch it receives to restore the energy balance on the interconnected electric system due to measures</p>	<p>See comments in response to the proposed definition of “transmission market constraint.”</p>

Proposed Amended Terms and definitions		
Existing Terms and Definitions	Proposed Amended Terms and definitions	Stakeholder comments
to mitigate a transmission constraint .	taken to mitigate a transmission market constraint .	
<p>“upstream constraint side” means, in relation to the transmission elements that comprise the transmission constraint, those elements of the interconnected electric system more proximate to the supply side of the transmission constraint than to the load or consumption side of the transmission constraint.</p>	<p>“upstream constraint side” means, in relation to the transmission elements that comprise the transmission market constraint, those elements of the interconnected electric system more proximate to the supply side of the transmission market constraint than to the load or consumption side of the transmission market constraint.</p>	<p>See comments in response to the proposed definition of “transmission market constraint.”</p>

Proposed New Terms and definitions	
Proposed New Terms and definitions	Stakeholder comments
<p>“delist outage” means a derate or an outage for a source asset or load sink asset associated with a temporary delist referred to in section 206.9 of the ISO rules, <i>Delisting</i>.</p>	<p>Capital Power has no comments at this time.</p>
<p>“dispatch tolerance” means:</p> <ul style="list-style-type: none"> (i) 1 MW for each pool asset with a maximum capability less than 5 MW; (ii) 5 MW for each pool asset with a maximum capability greater than or equal to 5 MW and less than or equal to 200 MW; or (iii) 10 MW for each pool asset with a maximum capability greater than 200 MW. 	<p>Capital Power has no comments at this time.</p>
<p>“electricity market participant” means</p> <ul style="list-style-type: none"> (i) any person that supplies, generates, transmits, distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services, or (ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or ancillary services 	<p>Capital Power has no comments at this time.</p>
<p>“supply obligation” means for a fixed period of time, a person’s fixed price physical and financial obligations, in MW and, <u>measured at a specific point in time,</u> that have the <u>net</u> effect of reducing the person’s exposure to the pool price by the amount of the obligation.</p>	<p>As noted in its comments to the AESO proposed draft new and amended energy market rules submitted September 28, Capital Power suggested that the reference to “supply obligation” at ISO rule section 203.5 – <i>Energy Market Mitigation</i> should specify that this be net exposure. Additionally, it should be recognized that a market participant's supply obligation can change over time. Therefore, Capital Power proposes the changes in the adjacent cell.</p>
<p>“transmission market constraint” means an exceedance of a reliability limit on 1 or more elements of the transmission system, where:</p> <ul style="list-style-type: none"> (i) the ISO must take action to prevent or mitigate the exceedance; and (ii) results in an impact to the normal economic merit operation of generation, load, or interchange transactions, <p>excluding a circumstance where the capability limits referenced in Section 303.2 of the ISO rules, <i>Available Transfer Capability</i> are exceeded.</p>	<p>Capital Power does not support use of the qualifier “market” in the term “transmission <u>market</u> constraint” and believes it is unnecessary. The qualifier should be removed, and the term should remain as “transmission constraint”. It is unclear to Capital Power what would distinguish a “transmission market constraint” from a “transmission constraint” as currently defined in the AESO’s Consolidated Authoritative Document Glossary. If the AESO disagrees, please clarify and provide rationale for the change.</p> <p>In either case, clarity is required with respect to the impact of transmission curtailments on an asset’s uniform capacity value calculated pursuant to Section 206.3 as well as its availability and delivery assessments pursuant to Section 206.8. It is Capital Power’s understanding, based on its participation in the AESO’s capacity market design working groups as well as its reading of CMD Final, that transmission curtailment risk in the capacity market with respect to an asset’s uniform capacity value as well as its availability and delivery assessments will be borne by the AESO (with the</p>

Proposed New Terms and definitions	
Proposed New Terms and definitions	Stakeholder comments
	<p>exception of transmission outages where a capacity asset is electrically disconnected from the transmission system as result of its own actions). Hours in which a capacity asset was unable to deliver its committed capacity volume due to a transmission system outage would not be included in the resource's uniform capacity value calculated pursuant to Section 206.3 or its availability and delivery assessments pursuant to Section 206.8. If the transmission outage was the result of a capacity asset being electrically disconnected from the transmission system as result of its own actions, then these hours would be included and count against the asset's uniform capacity value calculation as well as its performance assessment.</p> <p>This approach makes sense because it recognizes that the AESO – in its role as the transmission system planner – is the party best able to manage the risk of transmission curtailments and it keeps capacity assets economically whole for curtailment risks outside of their control. Capital Power is concerned that drafting language in Sections 206.3 and 206.8 as well as proposed changes to the definition of “acceptable operational reason” in the energy market do not reflect the above understanding. To help clarify the impact of transmission curtailments on a capacity asset's uniform capacity value and performance assessment, Capital Power proposes adding the term “transmission system outage” to the list of defined capacity market terms in addition to the concept of “transmission (market) constraint”. A definition for the term “transmission system outage” is proposed in Capital Power's comment matrix in response to the proposed new Set 1 and 2 capacity market terms and definitions.</p>

Proposed Removed Terms and definitions	
Proposed Removed Terms and definitions	Stakeholder comments
<p>“transmission constraint” means a limitation imposed by one (1) or more transmission elements to normal economic merit operation of generation, load and interchange transactions or to the flow of electrical energy from one part of the interconnected electric system to the other.</p> <p>[replaced with “transmission market constraint”]</p>	<p>Capital Power does not support the proposed replacement. See comments in response to the proposed definition of “transmission market constraint”.</p>
<p>“long term adequacy (LTA)” means the ability of future electric system energy supply to meet expected aggregate electrical demand requirements over several years.</p> <p>[replaced with resource adequacy standard]</p>	<p>Capital Power has no comments at this time.</p>
<p>“LTA metrics” means all adequacy information related items, including historical data and forecasts that the ISO will regularly capture, calculate and report on.</p>	<p>Capital Power has no comments at this time.</p>
<p>“LTA threshold” means the magnitude measured with respect to one of the LTA metrics that, if exceeded, would indicate a need for the consideration of preventative action.</p>	<p>Capital Power has no comments at this time.</p>
<p>“LTA threshold actions” means out-of-market measures the ISO may choose to implement to remedy an actual or impending LTA 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 market participants. LTA threshold actions are intended to preserve LTA until new generation capacity is built or load decreases.</p>	<p>Capital Power has no comments at this time.</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	Capital Power has no comments at this time.
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	Capital Power does not see any rationale for prescribing a fixed term for the proposed ISO rule definitions and as such believes that the proposed definitions should <u>not</u> be in effect for a fixed term. This will provide needed certainty to market participants regarding the longevity of the capacity market rules and design.
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	Capital Power has no comments at this time.
4	how, in your view, [the proposed ISO rule definitions] affects the performance of the capacity market and the electricity market	Capital Power has no comments at this time.
5	your views on any analysis conducted or commissioned by the AESO supporting [the proposed ISO rule definitions]	Capital Power is not aware of any analysis conducted or commissioned by the AESO supporting the proposed ISO rule definitions. As such, Capital Power has no comments at this time.
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	Capital Power has no comments at this time.
7	whether you would suggest any alternatives to [the proposed ISO rule definitions]	Capital Power has no comments at this time.
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	Capital Power has no comments at this time.

Item #		Stakeholder comments
9	whether you agree that the proposed provisional rule definitions supports the public interest and why or why not	Capital Power has no comments at this time.

Proposed New Set 3 Capacity Market Terms and Definitions

Period of Comment:	September 21, 2018	through	October 9, 2018	Contact:	Ricardo Rangel Ruiz
Comments From:	Capital Power			Phone:	403 717 4642
Date [2018/10/09]:				Email:	rrangelruiz@capitalpower.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>“resource adequacy standard” means the minimum level of expected unserved energy established by Government of Alberta in regulation.</p>	<p>Consider revising to the following: “resource adequacy standard” means the minimum level of <u>normalized</u> expected unserved energy established by Government of Alberta in regulation.</p>
<p><u>“normalized expected unserved energy (“NEUE”)” means the metric that represents the allowable expected percentage of total gross load in percentage terms that is not served in a given 12-month period as a result of non-interruptible demand exceeding the available capacity once contingency reserves are depleted but regulating reserves are maintained. The NEUE level is established by Government of Alberta in regulation.</u></p>	<p>Capital Power believes that the term “normalized expected unserved energy (“NEUE”)” should be a defined term, see proposed definition to the left.</p>
<p><u>“expected unserved energy (“EUE”)” means the metric that represents the allowable expected energy of total gross load in megawatt-hours, consistent with the established NEUE, that is not served in a given 12-month period as a result of non-interruptible demand exceeding the available capacity once contingency reserves are depleted but regulating reserves are maintained. The EUE metric is used in the probabilistic model to determine the gross minimum procurement volume.</u></p>	<p>Capital Power believes that the term “expected unserved energy (“EUE”)” should be a defined term, see proposed definition to the left.</p>
<p><u>“cost of New Entry (“CONE”) or gross-CONE” is meant to represent the total annual net revenue (net of variable operating costs) that a new generating resource would need to earn in Alberta wholesale electricity market to recover return on and of capital and fixed costs, given reasonable expectations about future cost recovery over its economic life.</u></p>	<p>Capital Power believes that the term “cost of New Entry (“CONE”) or gross-CONE” should be a defined term, see proposed definition to the left taken from the draft Net-CONE Information Document</p>

Proposed Term and definition	Stakeholder comments
<p><u>“net-CONE” is a non-negative number that represents CONE net of the first-year non-capacity market revenues, for a reference technology resource type and is intended to equal the amount of capacity revenue the reference technology resource would require, in its first year of operation, to be economically viable given reasonable expectations of the first year energy and ancillary services revenue (EAS) offsets, and projected EAS offsets over its economic life.</u></p>	<p>As stated in Capital Power’s comments on ISO Rule section 207.2 (Calculation of net-CONE), the ISO must define CONE and net-CONE.</p> <p>Market rules in other markets define net-CONE. For example, Net-CONE is defined in ISO-NE tariff, section 1.2.2. It is critical to conceptually define net-CONE to guide the practical application. See proposed definition to the left.</p>
<p><u>“adjusted net-CONE” means net-CONE adjusted for the performance factor of the reference technology in order to represent net-CONE in uniform capacity terms and be used in the demand curve.</u></p>	<p>To properly understand net-CONE in the demand curve context, adjusted net-CONE must be defined. Market participants also need clear understanding of the rationale and difference between net-CONE and the adjusted net-CONE used in the demand curve. See proposed definition to the left.</p>
<p><u>“energy and ancillary service revenue (EAS) offsets” means energy, ancillary services and other market services revenues net of variable costs estimated for the reference technology. EAS offsets are entered into a financial cash-flow model employed to estimate Net CONE for the reference technology.</u></p>	<p>To properly understand net-CONE, a definition for energy and ancillary services offsets is required. See proposed definition to the left.</p>
<p><u>“demand curve” means a downward sloping curve that represents consumers’ willingness to buy different levels of uniform capacity as a function of price. The demand curve is used in the base and reconfiguration auctions.</u></p>	<p>Capital Power believes that the term “demand curve” should be a defined term, see proposed definition to the left.</p>
<p><u>“gross minimum procurement volume” means the level of gross capacity required to meet the resource adequacy standard according to ISO Rule Section 207.1</u></p>	<p>Capital Power believes that the term “gross minimum procurement volume” should be a defined term, see proposed definition to the left.</p>

Proposed Term and definition	Stakeholder comments
<p><u>“net minimum procurement volume” means the gross minimum procurement volume adjusted according to fungible uniform capacity value. The net minimum procurement volume is used in the demand curve.</u></p>	<p>Capital Power believes that the term “net minimum procurement volume” should be a defined term, see proposed definition to the left.</p>
<p><u>“load data” means gross load as a measure of load for the ISO’s load forecast that corresponds to Alberta Internal Load as reported by the AESO in its Current Supply Demand Report, gross up by demand response and qualified resources of less than 5 MW.</u></p>	<p>The AESO must define the intended measure of its demand forecast and how it relates to reported actual load information. This aspect becomes more important with the advent and participation in the capacity market of small generating units and demand resources, including energy efficiency. See proposed definition for “load data” to the left.</p>
<p><u>“Alberta interconnected electric system load or AIES load” means load used to define Alberta’s resource adequacy standard. AIES load is load on the interconnected electric system, which excludes load that is served on-site in Medicine Hat and electric energy generated by a person and consumed by the same person behind-the-fence. AIES load corresponds to the sum of all sources reported in the metered volumes of the AESO’s historical reports, gross up for demand response if demand response is not included in the metered volumes as a source.</u></p>	<p>The AESO must define the load that the Government of Alberta has established to define the resource adequacy standard and how it relates to actual load information reported by the AESO.</p> <p>On October 1, 2018, the Department of Energy (DoE), issued “Stakeholder Paper no.3 – Revised Regulatory Concepts” , where the DoE revises the resource adequacy standard of normalized expected unserved energy to be <i>“...the expected percentage of total load (in megawatt hours) on the interconnected electric system that is not served in a given 12-month period as a result of demand exceeding the available capacity.”</i></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	Capital Power has no comments at this time.
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	Capital Power has no comments at this time.
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	Several definitions are missing to be able to meet the objective and purpose of the capacity market. See proposed additional 11 definitions above.
4	how, in your view, [the proposed ISO rule definition] affects the performance of the capacity market and the electricity market	Capital Power has no comments at this time.
5	your views on any analysis conducted or commissioned by the AESO supporting [the proposed ISO rule definition]	To Capital Power's knowledge, the AESO has not performed any analyses or review of terms defined in other capacity markets.
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	A fair, efficient and openly competitive market requires appropriate definitions of key capacity market concepts for transparency, stability and market confidence purposes. It is not appropriate to define these concepts in ID documents given that their permanence and validity is expected across multiple auctions such that they should not be without Commission oversight.
7	whether you would suggest any alternatives to [the proposed ISO rule definition]	See additional proposed definitions above.
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	Capital Power has no comments at this time.

Item #		Stakeholder comments
9	whether you agree that the proposed provisional rule definition supports the public interest and why or why not	Capital Power has no comments at this time.