

**Revised AESO Recommendation Paper - Operating Reserve
 Market Redesign
 Capital Power Comment Matrix
 April 16, 2010**

The AESO has released a revised Operating Reserves Market Redesign Recommendation Paper in response to feedback received on the January 2009 Recommendation Paper. Given the changes made to the recommendations, the AESO is soliciting stakeholder feedback on the revisions by April 16th, 2010. The changes from the previous paper are highlighted in the matrix below.

Section	Subsection	Stakeholder Response
	<p>OR market price cap equal to energy market price cap</p>	<p>We disagree with the AESO’s recommendation to set the price cap in the OR market equal to the price cap in the energy market. It is inappropriate for sellers to be permitted to offer OR at a positive index to pool price, recognizing the revenues required from providing OR may in some circumstances be justifiably greater than revenues from producing energy, at every instance other than at the energy price cap. OR should be considered a superior product to energy due to the value placed on the provision of a reliable system and on preventing the loss of load. If OR are capped at the energy price cap the AESO is inadvertently incenting participants to allocate their resources away from the OR market during times of scarcity in which they should be valued most.</p> <p>Although some may argue that during times of scarcity some OR products are directed to produce energy and OR providers therefore receive both an OR payment and an energy payment, and that these payments together provide appropriate compensation this does not occur outside of an Emergency Alert,</p>

		<p>which is not dependent on price being set at the cap. Therefore, at times when prices are high but there is not a system emergency the appropriate price signals are not being sent.</p> <p>The AESO may feel it is necessary to cap the price of OR. Capital Power is of the view that the price cap for OR should be greater than the price cap for energy in order to accurately reflect the additional value of OR, particularly in times of scarcity.</p>
<p>3.2 Market Framework</p>	<p>3.2.1 Add to the Suite of D-1 OR Products</p> <p>Hourly products are the revised recommendation for both Active and Standby instead of a shaped product with selling logic.</p>	<p>Capital Power does not support the AESO proposal to move to hourly products for Active and Standby products at this time. It is our view that should the AESO move to procuring all products hourly in the future that would be the appropriate time to make the transition to procuring hourly shaped products as well.</p> <p>It is our understanding that one of the main drivers of this redesign is to simplify the market to enable participation of many players thereby increasing liquidity. Shifting to hourly procurement for shaped products greatly increases the complexity of providing a relatively small percentage of volume and likewise value for the provider. Rather than submitting a single price and quantity offer, market participants will be required to submit a total of 24 hourly prices and quantities, thereby, increasing the time and effort required to participate in this market.</p> <p>In addition, we believe that the hourly procurement of shaped product will incent market participants to offer only in hours that are the most profitable rather than offering in all hours that they as they are able reducing liquidity in low price hours.</p>
	<p>3.2.3 Standby Baseload On and Off Peak</p>	<p>The current pricing mechanism requires that a market participant</p>

	<p>Premium is set based on a clearing model rather than pay as bid. Premium establishes a merit order for activation.</p>	<p>offer both a premium and an activation price (and the activation rate is a function of the activation price). The AESO mentioned that the issue with the current mechanism is that it is complex and it is difficult to optimize the selection of OR offers when the selection criteria requires consideration of two offer parameters. Capital Power does not support the AESO proposed pricing model for Standby Reserves for the following reasons:</p> <ul style="list-style-type: none">• The AESO's proposed approach makes the activation rate a function of the premium rather than the activation price. We disagree that generators should compete on premium. The selection of OR offers should be based on the willingness of a generator to be activated. We recommend that the selection mechanism should be based on activation price and a merit order developed from the activation price submitted by OR providers.• The current standby market allows participants to offer both energy and standby reserves. In other words, participation in the two markets is not mutually exclusive. In contrast, the active market is indexed to pool price, and rightfully so, because a participant cannot provide energy and active reserves, these markets are thus mutually exclusive. Consequently, assets that are unlikely to be dispatched in the energy market compete aggressively in the active market because of their lower opportunity costs for participation. Due to this difference it is not appropriate to set the activation price in the standby market at the clearing price for active reserves, since this does not accurately reflect the opportunity costs of standby market providers that participate are in the Energy market. We recommend that OR providers compete on activation price rather than premium in order to address this issue. In order to achieve simplicity in selecting providers based on a single pricing
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3.3 Procurement Process and Timing	3.3.2 A reasonable procurement schedule The trading schedule has been revised. The revised schedule has 10 minutes between closes for baseload markets and 20 minutes between closes for hourly markets.	
3.4 Market Framework	3.4.4 5 MW minimum blocks The AESO will consider assets less than 5 MW for participation in the Supplemental market. Aggregators will also be considered. The ISO Rules consultation will further develop these concepts and standards.	We do not support the AESO recommendation to limit offers to a minimum of 5 MW blocks; rather, we are of the view that no unit should be able to provide less than 5 MW consistent with the energy market. We recommend that offer blocks be allowed to be less than 5 MW as long as the summation of a units offer blocks equals 5 MW or greater.
	3.4.8 Dealing with conflicting ancillary service obligations	Contracted TMR providers should not be permitted to double sell their capacity by offering MW's that are committed to providing TMR into the OR market. It is not sufficient to simply deter market participants from engaging in this type of behaviour through the use of penalties, this behaviour should be prohibited and stated as such in the ISO Rules.

3.6 Multiple Buyers	3.6.2 AESO facilitate third party asset substitution There are issues concerning confidentiality of sellers that must be resolved prior to enabling third party asset substitution. The AESO is committed to finding a practical solution for third party asset substitution and will continue to pursue this issue.	
3.8 Compliance and Market Integrity	3.8.2 Continue to use force majeure definition in NGX Agreement	For the rules to be fair, the compliance obligation should be directed at the party who has the ability to control physical compliance. The current OTC contract considers via the definition of force majeure that there are circumstances in which action or inaction taken by the PPA Owner is out of the control of the PPA Buyer (for that reason the PPA Buyer is able to declare Force Majeure). Capital Power recommends that the OR rules that set out compliance requirements have embedded in them a due diligence defense for the PPA buyer as does Rule 6.6, Pool Participant Non-Compliance with Energy Market Dispatches.
	3.8.3 Improve transparency of OR providers	Capital Power does not agree that real time visibility will create more benefit than harm. Real time information on a market as small as the one for OR will increase the chances of signaling or revealing an OR provider's strategy. We recommend that information be treated like energy offer information, which is published 60 days after the settlement date.
5.0 Consultation and	5.0 Phased Implementation	It is our understanding that the AESO will need to develop

<p>Implementation Process</p>	<p>Following the comment period, the AESO plans to initiate changes to the OR market design in a phased manner. It is expected this will facilitate a smoother transition to the revised market design.</p>	<p>additional OR products in order to facilitate the growing amount of wind generation to be integrated into the system. Capital Power would like to see the AESO focus on this initiative and does not think that Phase I should hold up this development.</p>
	<p>5.1 Changes to Current Practices</p> <p>The first step in the OR Redesign is to move all procurement to D-1 within the current market design. In addition, the AESO will begin improving the transparency of the OTC market by providing pricing information after the close of the OTC market.</p>	