

AESO OR Market Redesign Revised Recommendation Paper  
Stakeholder Comment Matrix  
May 27, 2010

General Comments

Stakeholder	Stakeholder Comment	AESO Response
TransCanada	<p>As a general comment, TransCanada is concerned about how few improvements to the OR market are included in Phase I. TransCanada believes the proposed staged approach to redesigning the OR market will not allow it to advance quickly enough to meet the needs of the market, given the time involved in implementing and reviewing the Phase I changes, followed by the consultation on and implementation of Phase II solutions. Across the continent, the importance of OR is growing as electrical systems begin to integrate substantial quantities of intermittent resources. TransCanada recommends that the AESO reconsider the proposed staged approach and pursue more significant improvements at this time.</p>	<p>The improvements in the Phase 1 redesign achieve key design objectives of improving market transparency, reducing AESO influence and simplifying the market design. The AESO does not believe dropping the Phase 1 improvements and starting over with larger changes immediately will result in faster results for changes that may be required in the long term.</p>

3.1.2 Minimize AESO Influence

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	<p><b>AESO: [Response to TransAlta]</b> The AESO believes that the benefits of moving all of its procurement to D-1 include:</p> <ol style="list-style-type: none"> <li>1. Improving the reliability of the OR index;</li> <li>2. Reducing complexity of the market;</li> <li>3. More concentrated volume is traded in a single period;</li> <li>4. Removing AESO discretion in the market;</li> <li>5. Decreases the number of products and commitment a provider must make; and</li> <li>6. Establish more meaningful indices and promote liquidity.</li> </ol> <p><b>ENMAX: [Reply to AESO Response]</b> ENMAX reiterates its concern, stated in section 3.1.3 of the previous round of comments, that the elimination of all but D-1</p>	<p>The AESO notes that its volume requirements at D-1 are well known regardless of whether auctions took place for a portion</p>

	<p>auctions may result in the “squeeze” described in the AESO’s original paper. ENMAX acknowledges the AESO’s comments about its existing practice, but notes that the AESO proposes to submit volumes only in the future. (Those volumes are reasonably predictable by market participants.) ENMAX also notes again that the ability to trade at D-n must be preserved for weekend/holiday trading, which means there’s a minimal incremental cost to preserving at least the option to trade at D-n. With these points in mind, ENMAX has the following comments on the AESO’s response.</p> <ol style="list-style-type: none"> <li>1. ENMAX is not aware of any competitive market theory that suggests a price is improved by concentrating all trades at a single point in time. In fact, it could be argued that a price discovered over time is truer than a price discovered at a particular instant, and indeed futures contracts for most commodities trade over multiple sessions. Any benefit that is perceived to come from trading all volumes at one instant must be weighed against the potential for market manipulation at that instant. ENMAX notes that the average volume of OR traded each day is the annual volume required divided by the number of trading sessions, regardless of whether D-1 or D-n is being used. The only difference with D-n is that the delivery schedule will not be the same for every MW traded, which is no different than trading on Friday for Saturday, Sunday, and perhaps holiday Monday.</li> <li>2. ENMAX acknowledges that there may be a slight reduction in complexity, though the participation of parties not having real-time trading operations would be facilitated by standing offers.</li> <li>3. Please see the comment in 1 about the average volume traded in each session.</li> <li>4. The AESO cannot remove its discretion to decide on OR volumes, at least at this time, since it must forecast OR requirements. It would be a simple matter to construct a mechanism to randomly divide the AESO’s required volumes among trading sessions, leaving the AESO’s</li> </ol>	<p>of volume at D-5 through D-2. The AESO believes the market is competitive and market forces will prevent the squeeze noted in the ENMAX comments.</p> <p>The AESO’s current experience is that the markets at D-2 through D-5 are less competitive than the D-1 market. There is incremental risk associated with trades farther ahead of delivery and fewer participants make offers in the markets further from delivery.</p> <p>The AESO’s experience is that not all sellers participate in all subsets of the D-1 through D-5 markets. Total volume traded may not change but the AESO believes the average number of sellers competing for a given MW will increase when all trading occurs at one point in time because the full set of suppliers will be competing for each MW, which is not currently the case.</p> <p>Acknowledged. The auction design is intended to facilitate standing offers through blind offers.</p> <p>The AESO again notes market participants would retain the ability to forecast the AESO’s volume requirements at D-1. The AESO also suggests that the cost to suppliers of ‘squeezing’ the AESO at D-1 (i.e. lost sales) is smaller when they have already sold a portion of their available supply in</p>
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	<p>influence at deciding on required volumes only. (This also addresses the AESO's response to Northstone Power that "multi-day auctions also force the AESO to participate in the market by determining volume splits for each day.")</p> <p>5. Under the AESO's proposal, OR price commitments aren't really commitments because prices are indexed to pool price. Volume commitments can be filled via asset substitution.</p> <p>6. Please see ENMAX's comments above on point 1.</p>	<p>previous days. The AESO does not believe removing multi-day auctions will alter the risk sellers will be able to squeeze the AESO. Competitive forces will minimize this risk as is currently the case.</p> <p>An OR seller commits to a discount. While the price is not fixed, the discount is a commitment. The AESO will consider asset substitutions – see response to TransCanada in Section 3.4.2.</p>
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**3.2.1 Add to the suite of D-1 OR Products**

Stakeholder	Stakeholder Comment	AESO Response
ATCO Power	<p>ATCO Power acknowledges the AESO's response to continued use of on/off peak products for baseload requirements. Procuring the entire volume hourly on a day ahead basis would be a more efficient solution. An hourly operating reserves market best mirrors the energy market and allows all the volumes for each individual hour to clear based on supply and demand fundamentals. While the more economic solution is for all products to clear hourly, we're pleased the AESO has recommended an hourly product for the shaped requirements as this simplifies the market and offers additional flexibility to participants.</p> <p>ATCO Power supports the inclusion of an in-market solution as a backstop mechanism to protect against the possibility of conscription.</p>	<p>Acknowledged. The AESO notes that many participants prefer the on/off peak market design currently used, but the shaping needs can best be met with an hourly product that provides flexibility and efficiency.</p> <p>Acknowledged.</p>
Capital Power	<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>The AESO's rationale for the hourly market is to allow shaped products to be traded on a similar basis to block products and ensure price is the sole basis of competition, as opposed to selling logic.</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>The AESO notes that hourly procurement simplifies the market in that all volume will be priced with the same model. Blind offers and software solutions will be utilized to minimize the time and effort required for the hourly markets, where required. Participants will retain the ability to offer on and off peak block products.</p> <p>The AESO acknowledges that some hours will be more attractive than other hours in the hourly market. As a result, these hours should be more competitive between suppliers. On balance, providing flexibility to suppliers should facilitate competition.</p>
ENMAX	ENMAX supports the use of hourly products in lieu of shaped products with selling logic.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	<p>IPCAA continues to have serious concerns with respect to the potential cost of ancillary services under this redesign. Since the AESO is using only quantity, and not price and quantity, with no specific targets for base and on-peak volumes, there will be minimal consumer protection. To date, all of IPCAA's responses and recommendations on this OR redesign have been ignored. The only changes made to the redesign have been the result of recommendations made by OR sellers, not the eventual buyers.</p> <p>According to the AESO "Should a generator be conscripted to provide OR, Article 11.3 of the Terms and Conditions of the AESO tariff outlines compensation." This section implies that the conscripted OR provider will receive the highest possible price.</p> <p>How will the AESO prevent sellers from increasing price severely</p>	<p>The AESO does not use its bid price in an attempt to influence or reduce price.</p> <p>The AESO will procure baseload volumes (based on the minimum volume required for on and off peak needs) in the block product markets, consistent with the current practice.</p> <p>The changes in the revised recommendations are designed to improve transparency, align with the energy market, simplify the design and reduce the AESO role in the market. The changes made are consistent with the stated goals of the redesign project. The AESO also notes that the MSA identified these issues with the current OR market design in its 2007 Second Quarter Report.</p> <p>This interpretation is correct and is currently the case for conscripted providers.</p>

	<p>and selling everything in hourly market? If there is to be no must-offer, must comply provision, how will the AESO prevent economic withholding when conscripted volumes receive the highest price possible?</p> <p>Will there be a tolerance limit or target around how much volume the AESO procures in the hourly products, as opposed to the current products?</p> <p>If hourly products are being procured, it should be possible to allow loads to self-supply OR. Given the progress made with the proposed changes to the AESO GTA to better align OR costs with hourly energy consumption, the AESO should enable self-procurement of OR as part of this redesign.</p>	<p>The AESO believes competition disciplines behaviour. There is no must offer must comply provision currently, and the AESO very rarely conscripts volume. Conscripted providers currently receive the higher of the market price and their cost – this is not a change relative to the current design.</p> <p>The AESO plans to procure its baseload volume requirements with block products, as is the case today. The hourly products will be used to transparently procure the volumes that are currently purchased OTC.</p> <p>The AESO will examine the possibility of registering physical net sales agreements for ancillary services. Since the revised transmission tariff aligns energy consumption and ancillary services costs, the alignment with the energy market is improved. Net settlement would allow loads and generators to physically hedge ancillary services in the same manner physical power can be hedged via net settlement instructions.</p>
TransAlta	<p>TransAlta continues to look for development of a market beyond D-1 to sell Ancillary Services. We are hopeful the AESO will take steps over time to allow for products to be developed that would allow for trading out in the 1 month to 1 year time frame. The movement to D-1 does not allow for any forward hedging of these products.</p> <p>The movement of OTC products to hourly shaped products is manageable for TransAlta as long as the time frame remains at the shortest interval of D-1. We are concerned that the AESO is considering movement to T-2 timeframe in the future. This would create the need for all participants in the market to staff 24 hour a day desks. This is not an insignificant cost. The cost of a 24 hour desk is ball parked at 1 million dollars per annum. Further, there would be significant changes required to the forecasting and management tools especially for hydro facilities. We would ask that the AESO look at all available options rather than focus on the solution of T-2 for phase 2 if required.</p>	<p>The AESO will examine the possibility of registering physical net sales agreements for ancillary services. This would allow loads and generators to physically hedge ancillary services and would allow participants to choose contract terms suitable for their needs. However, the AESO does not intend to purchase OR products on a term basis itself as this forces the AESO to participate in the market by choosing between term and day ahead purchases.</p> <p>Acknowledged. The AESO is committed to facilitating competition and reducing barriers to participation in the OR market. If a T – 2 model is examined in Phase 2 of the redesign all costs and administrative burden will be considered relative to the costs and benefits of alternatives.</p>

### 3.2.3 Premium Set via a Clearing Model in Standby Market

Stakeholder	Stakeholder Comment	AESO Response
Capital Power	<p>The current pricing mechanism requires that a market participant 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"> <li>• 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.</li> <li>• 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 in the Energy market. We recommend that OR providers compete on activation price rather than premium in order to</li> </ul>	<p>The recommended design was developed in order to move to a model where generators compete for standby volumes on a single price. Willingness to be activated can be reflected in the premium in that the premium represents a risk adjusted payment for taking the risk of being activated at a known activation price.</p> <p>The AESO notes that once activated, a standby provider is in effect no different than an active provider. There is also significant overlap between the two markets, i.e. the providers are the same or similar in many cases for both active and standby reserves.</p> <p>The premium in the recommended model reflects the risk adjusted cost of being activated at a known discount (the clearing price from the Active market). Providers with a lower expected cost can offer lower premiums. The AESO believes this model will result in competitive outcomes where sellers with the lowest cost of being activated will offer the lowest premium.</p>

	<p>address this issue. In order to achieve simplicity in selecting providers based on a single pricing parameter we recommend that since premiums, on a dollar basis, are relatively static over time (relative to activations), the premium could be a function of historical pool prices or made static by product based on historical observed premiums and indexed to inflation thereafter.</p>	<p>The AESO does not agree with the concept of administratively setting the premium.</p>
<p>ENMAX</p>	<p><b>AESO: [Response to EPCOR]</b>  The AESO agrees that a marginal price methodology indexed to the pool price best supports a FEOC market for OR. This design provides several benefits over pay as bid and/or fixed price offers...</p> <p><b>ENMAX: [Reply to AESO Response]</b>  ENMAX has no objection to marginal and indexed pricing in connection with Phase I of the market redesign. However, ENMAX cautions against the implicit assumption that such a market design is necessarily optimal or that it is the only one that is FEOC. For example, the existing real-time, marginal-price energy market suffers from several drawbacks, including after-the-fact price discovery, system marginal prices that in many hours are set by ramp-rate requirements rather than by the intersection of supply and demand, and the fact that a large proportion of offers are not based on marginal cost at all (as a rudimentary examination of almost any supply curves will show). Also, while indexed pricing may reduce generators' risks and therefore risk premiums in prices, it transfers outage risk to consumers—who cannot manage it. Transferring generators' risks—whether associated with energy or OR—to consumers makes sense only if generators' risk profiles and preferences are homogeneous and if consumers get the up-side benefits along with the down-side risks (i.e., if risk and reward are matched). The AESO's comment that lower risk should reduce the overall costs of OR could, by extension, be taken to mean that the lowest cost of electricity should be achieved if generators face zero risk. Having zero risk removes the incentive for efficient operation.</p>	<p>The AESO reiterates its view that indexed pricing best supports the FEOC market at this time in that it accurately reflects the most significant cost faced by most OR sellers, i.e. the opportunity cost of energy sales. Risk is therefore minimized in that the price of OR can most accurately reflect the cost of supply for the majority of suppliers.</p> <p>The AESO recognizes that consumers face outage risks as a result of indexed prices. Consumers also get the 'upside' associated with low energy prices.</p> <p>The AESO is planning to improve consumers' ability to manage OR costs through facilitating net settlement of OR, similar to the net settlement instructions that exist for energy.</p>
<p>IPCAA</p>	<p>IPCAA recommends that the AESO reconsider the pay-as-bid</p>	<p>A clearing price model creates better incentives for suppliers</p>

	<p>model. This will put suppliers at risk to their offers.</p> <p>“An OR seller will be permitted to offer at a positive index to pool price...” Why? Fuel is not even being used if the supplier is not called upon. What is the rationale for paying OR suppliers more than energy suppliers?</p> <p>IPCAA believes that the only reason the OR price would be higher than the pool price would NOT be for economic reasons. This would be an example of price manipulation through withholding of supply in the OR market.</p>	<p>to reflect their true costs in offers and reduces the risk of inefficient dispatch. This is consistent with the energy market design and all other Alberta OR markets. It also facilitates participation for smaller providers because all providers receive the same price which reflects the value of the marginal unit required.</p> <p>Positive indexes have always been allowed in the OR market to reflect that in some instances the cost of supplying OR is positive relative to the pool price. Positive indexes currently occur, generally in periods when the energy price is expected to be very low.</p> <p>The AESO notes that OR is a voluntary market and there are incremental risks, requirements and operational considerations for OR providers that may result in positive indexes for OR.</p>
TransCanada	<p>AESO Recommendation 3.2.3: OR indexed to pool price with a marginal price model</p> <p>TransCanada believes that the “close relationship” between the OR and energy market described by the AESO is debatable today and that the two markets are likely to become even more disconnected over time for the following reasons:</p> <ul style="list-style-type: none"> <li>• When wind output is high, load may be high or low. As a result the energy price may be either high or low but ramp up capability from other resources will need to be higher than normal. This suggests that the OR prices should be independent of energy price; and</li> <li>• The willingness for load to be curtailed is often unrelated to electricity price. Load is therefore likely to want to know what they will be paid to take curtailment risk, without trying to guess electricity prices, so that they can choose an appropriate adjustment to the value. To the extent the AESO is desirous of new market supply it should tailor its products to the needs of more than just existing supply.</li> </ul>	<p>The design of potential ramping services for wind integration may result in a different pricing structure than that for existing services. Existing services are primarily supplied by generators that forego energy market opportunities and therefore the existing indexed price structure will be maintained.</p> <p>For any new products that are designed, the pricing mechanism will reflect costs and the nature of participation. Indexed prices are one aspect of this consideration.</p>

	Therefore, TransCanada believes that the AESO should consider whether indexing to pool price remains an appropriate OR pricing mechanism for the future.	
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3.2.3.4 Standby hourly activation price not equal to the corresponding active hourly price

Stakeholder	Stakeholder Comment	AESO Response
TransCanada	<p>2. AESO Recommendation 3.2.3.4: Standby hourly activation price not equal to the corresponding active hourly price.</p> <p>TransCanada disagrees with the proposal not to pay the same activation price for both products. The AESO's statement that allowing the standby hourly activation price to equal the corresponding active hourly price would have undesirable outcomes as a result of active hourly prices being higher than the active baseload on and off peak prices, ignores the effect of competition, and particularly what would be the effect of supply that cannot provide shaped products but can provide an hourly product.</p> <p>To illustrate we provide examples.</p> <p>If all potential providers moved to the hourly market seeking higher prices then the total supply competing to sell the hourly product would be all of the potential shaped product suppliers and all of the hourly suppliers. The increase in total supply would then be greater than what would have been offered for the shaped product, which should produce lower prices. As well, the AESO would select the best offer in every hour. This also should yield lower total costs. Further, consider that, instead of all supply moving to the hourly market all but one high priced offer moved. Then the shaped product would settle at a very high price while the hourly market would settle lower.</p> <p>Now consider what would happen the next day. With participants having seen the market results, there would tend to be a move to</p>	<p>The AESO believes there may be merit to the idea that it is unnecessary to separate the hourly and block markets in the case of standby products. Provided both products are indexed to the respective on or off peak index, the mix of providers can be chosen simply by minimizing the total premium paid. In effect, the AESO is willing to consider developing a more flexible standby market that treats hourly and baseload offers equivalently in a single market.</p> <p>This structure cannot be used in the active market because prices are indexed, but in the redesigned standby market block and hourly offers can readily be compared.</p> <p>The AESO will explore this concept further with stakeholders during the implementation phase.</p>

	<p>the shaped products which would be met in that market. After all, prices were higher and the product (according to comments provided) is more convenient to supply. This would lead to all of the system needs being met using the shaped product, which the AESO finds desirable. In the hourly market, regardless of price, there would be no sales.</p> <p>The foregoing we believe clearly illustrates that there is no need to artificially lower prices for the hourly product. We also posit that it is undesirable to lower the price in the hourly market because of the prospect of competition within the hourly market and of competition between the shaped and hourly market will increase the efficiency of both markets.</p> <p>Importantly we believe it will provide an opportunity for new supply to enter the OR market. The AESO should be cognizant that new supply will be needed in the OR and the rules should therefore be as accommodating of new supply alternatives as possible.</p>	
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3.2.4 OR Market Price Cap Equal to Energy Market Price Cap

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	<p><b>AESO: [Response to ADC]</b></p> <p>The economics of a load participant versus [a] generating facility selling OR are different. When a load participant is dispatched to provide OR they are required to continue with their operations and process and are able to run their business. When a generator is dispatched to provide OR they are not permitted to generate energy and make additional revenue.</p> <p>The AESO therefore believes that it is not appropriate to compare the economics of load[s] and generator[s] when</p>	

	<p>under a directive to provide OR.</p> <p><b>ENMAX: [Reply to AESO Response]</b></p> <p>Since loads face the opportunity cost of lost industrial production when they curtail for OR, it is not true that only generators lose their opportunity costs. Also, quick-start generators that are not in merit are eligible OR providers, which means may not suffer opportunity losses through OR provision. Further, whereas all generators' opportunity costs are inextricably linked to the electricity market, loads' opportunity costs may be linked to oil, gas, forestry, steel pipes, petrochemicals, and so on. Consequently, opportunity costs are not homogeneous among loads. For some products, therefore, pay-as-bid might make more sense than the use of a clearing price.</p> <hr/> <p><b>AESO: [Response to ENMAX]</b></p> <p>ENMAX's understanding is correct that regulating reserve must be maintained even in the face of firm load shedding.</p> <p><b>ENMAX: [Reply to AESO Response]</b></p> <p>ENMAX's understanding is that spinning and supplemental reserves can be shed before firm load. If this is correct, a payment of more than the highest price that can be paid by firm loads would not seem to make sense. With respect to regulating reserve, is there a minimum volume that must be maintained that is different from the volume that would normally be dispatched (due, for example, to the possible use of regulating reserves for wind following)?</p>	<p>The AESO believes that a clearing price model indexed to the pool price is the best model for the existing OR products.</p> <p>Acknowledged. Spinning and Supplemental reserve are shed prior to firm load. The AESO agrees these products should not be able to receive a higher price than that paid by firm load for energy.</p> <p>There are no external standards specifying regulating reserve volumes. The standard creating the need for regulating reserve is based on the ability to balance a control area and keep area control error (ACE) within the operating standard. Regulating reserve is effectively 'released' to energy when it reaches the top of its range, which could occur during a supply shortfall.</p>
Capital Power	<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</p>	<p>The AESO reiterates its position that OR products are shed prior to firm load and therefore OR compensation should not be greater than the price for energy paid by firm load.</p>

	<p>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>	
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### 3.3.2 Revised Trading Schedule

Stakeholder	Stakeholder Comment	AESO Response
AltaGas	<p>Assuming that all markets open at 9:00, it appears that the Active Baseload Reg market opens and closes at the same time. AltaGas believes that all markets should open at 9:00 and that the first market should close at 9:10.</p>	<p>The proposed schedule would open the markets prior to 9am and active regulating would close at 9am. Participants will be able to post blind offers prior to the market open, and the AESO will only be posting volume requirements.</p>
ATCO Power	<p>ATCO Power suggests the timeline for market closes be revisited in conjunction with the tools being provided through NGX. Under certain circumstances, 10 minutes is not enough time to transact. The schedule should accommodate all providers with sufficient time to participate on a daily basis including weekends and holidays. The timeline needs to be further examined prior to the first phase of market changes being implemented, and then again through a post implementation review.</p>	<p>The timeline can be revisited if tools are not sufficient to allow sufficient time for sellers to manage their position.</p>
ENMAX	<p>Agree.</p>	<p>Acknowledged.</p>
IPCAA	<p>“Adding random closes to the trading schedule will add unnecessary complexity.”</p>	

	<p>IPCAA does not agree with this statement. Random closes ensure more competitive marketplaces. If the AESO is going to remove multi-day procurements, and remove active bidding from the OR market, it must allow for some competitive mechanisms to ensure loads are not paying too much money for OR. Random closes are not too complex for traders to understand or accept. They have been used successfully in other marketplaces, such as for RRO products, and should be used here as well. The objective of the redesign should be to achieve a competitive pricing mechanism, not to overly simplify activity to appease traders.</p> <ul style="list-style-type: none"> <li>• How does the AESO plan to monitor the single auction results to ensure they competitive and reasonable?</li> <li>• What role does the AESO anticipate the MSA playing in monitoring OR market behaviour in real-time?</li> </ul>	<p>The recommended design utilizes a blind auction design that is intended to minimize participation costs for all potential providers. Maximizing the number of suppliers and reducing the cost of participation in the market will promote a more competitive OR market. Unlike the RRO market, the OR market is repeated daily with many closely linked products traded sequentially. Potential providers will be well aware of market prices relative to their cost structure of providing the product.</p> <p>The AESO will perform a post-implementation review. Given that other market fundamentals impact the cost of OR, care must be taken in evaluating the competitiveness of the market.</p> <p>The MSA's role in the OR market is expected to be similar to its role in the energy market. The AESO anticipates that the development of ISO Rules for OR will clarify this role and align it with the energy market.</p>
TransAlta	<p>TransAlta can accept the proposed procurement schedule as long as all bids for all markets can be submitted before the open of the first market. This reduces the administrative burden and chance for errors in comparison to having to input offers for each market just prior to the close of that market.</p> <p>However, we do have concerns with the continued necessity to assign units before the close of trades. We believe it would reduce errors and simplify the process if this occurred shortly after close of the market. We would like to see the use of a virtual unit, or the ability to just put out offers and volumes then assign an asset to the volumes after trading. This may also help with the tight timelines as the asset allocation could be done after the market closes.</p>	<p>Agreed. The trading software should support this function.</p> <p>The AESO is willing to consider the continued use of virtual units or assigning volumes after market close. The development of third party asset substitution facilitates this flexibility. Sellers can reasonably be held financially responsible for all trades entered into at D-1. In other words, trading errors would become the responsibility of the seller provided that the ability to liquidate a position exists via third party asset substitution. This aspect of the market is also important because there will be no OTC market to backfill trades in error. The AESO suggests this will improve the fidelity of the OR index because all trades will be binding at D-1 (absent an Acceptable Operational Reason – an AOR would continue to constitute reason for non-delivery) and therefore trades in error will not impact the index without consequence</p>

		to the seller. The AESO suggests that this would be in line with both energy market practices and trading rules for the majority of commodity markets.
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### 3.4.2 Removal of Virtual Units

Stakeholder	Stakeholder Comment	AESO Response
TransCanada	TransCanada believes that removing virtual units reduces flexibility for providers and thereby reduces competition. If suppliers are concerned with trading errors, such suppliers could choose not to use virtual units. TransCanada does not support the removal of virtual units; however, if asset substitution (including 3rd party substitution) is permitted, the issue is more an issue of principle than practicality.	The AESO is willing to consider the continued use of virtual units or assigning volumes after market close. The development of third party asset substitution facilitates this flexibility. Sellers can reasonably be held financially responsible for all trades entered into at D-1. In other words, trading errors would become the responsibility of the seller provided that the ability to liquidate a position exists via third party asset substitution.

### 3.4.4 5 MW Minimum Blocks

Stakeholder	Stakeholder Comment	AESO Response
AltaGas	<p>AltaGas agrees with the AESO that this section requires further consultation.</p> <p>AltaGas supports allowing assets less than 5 MW to provide Supplemental reserves, but is concerned about a theoretical cap on providers (200 1 MW providers, as an example). This cap needs to be justified as there does not appear to be any evidence that a large number of providers jeopardizes system integrity or presents any market challenges.</p> <p>In addition, how is it that assets less than 5 MW will be permitted to provide reserves, but when an OR market closes, transactions for 1 or 2 MW will be cancelled?</p>	<p>Acknowledged.</p> <p>The potential limit on the number of providers is driven by communication ability with reserve providers. If the number of providers is sufficiently large, there will need to be infrastructure improvements in order to handle the number of providers. This situation will be monitored to prevent it from becoming an impediment to providers.</p> <p>The distinction between assets smaller than 5 MW and assets larger than 5 MW will be developed in the ISO Rules process. The rule should allow providers smaller than 5 MW to participate yet also allow meaningful measurement on larger assets. The AESO will ensure that the standards for providers allow open competition between providers of different capacities without compromising system reliability.</p>

	<p>Also of concern is what happens if a generator's capacity is 3-4 MW? How will it meet its dispatch if it is automatically ramped up to 5 MW? Further clarification of these matters is required.</p> <p>In conclusion, AltaGas would note that it supports allowing aggregators to sell Supplemental reserves.</p>	<p>Acknowledged. This clarity will be developed through consultation as the Supplemental market is opened to smaller providers.</p> <p>Acknowledged.</p>
Capital Power	<p>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.</p>	<p>The AESO is recommending that only the first (lowest priced) block is a minimum of 5 MW and the AESO also recommends that this block be restricted to an inflexible block. Given that sellers must physically provide at least 5 MW in the market, there is no apparent reason to allow initial (lowest priced) offers of less than 5 MW. Offers over and above the initial 5 MW will be flexible at the 1 MW level.</p>
ENMAX	<p>Agree.</p>	<p>Acknowledged.</p>
IPCAA	<ul style="list-style-type: none"> <li>• The AESO should allow assets less than 5 MW to provide Supplemental reserves and should encourage aggregators to participate in the market.</li> <li>• Allowing aggregators to participate will increase the available supply of OR products from loads that do not have adequate volumes nor resources to participate in the current market.</li> </ul>	<p>Acknowledged.</p> <p>Acknowledged.</p>
TransAlta	<p>One problem with the current market system is that if a seller sells less than 5 MW, it is able to turn back these MW to the AESO and essentially break the trade. However, despite the fact that this trade is broken these MW's contribute to the clearing price. In our opinion, this behavior sends a negative price signal to the market. Essentially it allows participants to offer a price with no risk that they will actually have to provide them if their top block is not met. For example, a participant could price 3 MW at -\$900 and then 1 at -\$100 and 1 at -\$40. If the price clears at -\$50, the participant will have sold 4 MW and can simply turn these back to the AESO having risked nothing. However, the 4 MW that were in merit now are broken and yet contributed to the determination of the final</p>	<p>Acknowledged. The AESO agrees and recommends that a seller's first block must be at least 5 MW and inflexible.</p> <p>The AESO also suggests that all sales become binding on the seller at D-1 (absent an AOR), provided 3<sup>rd</sup> party asset substitution is in place. All trades that contribute to an index should be binding on the buyer and seller. Please see the AESO's response to TransAlta in section 3.3.2.</p>

	<p>price. These broken trades should have no influence on the final market price.</p> <p>The AESO appears to attempt to address this issue in sections 3.4.4 and 3.4.5, however, we believe the AESO needs to go further ensure that partial blocks that are ultimately not delivered cannot set the price. In section 3.4.5 the AESO recommends "...that a seller's first block must be at least 5 MW." This implies that the first block is the lowest price block. This should be clarified. In addition, this first block should explicitly be an inflexible block - either all of it is taken or none of it is taken. This will prevent the case where a seller's first block is the one that clears the market, but only with 2 MW thus allowing the seller to turn the MW back to the AESO but still setting price. (Flexible and inflexible blocks are discussed in section 3.4.6). Thus, if my lowest price block of 5 MW would clear price but with only 3 MW, my block is passed over and the next higher priced acceptable block sets price.</p>	<p>The AESO agrees that the lowest priced block must be 5 MW and inflexible. If this block is marginal and 1 MW or 2 MW are required, the AESO is open to either:</p> <ol style="list-style-type: none"> <li>1. Rounding the volume purchased to 5 MW and having the block set price. Total volume could increase by a maximum of 4 MW in this case.</li> <li>2. Not taking the volume and setting the price at the immediately preceding offer, i.e. lowering the volume purchased by 1 MW to 2 MW.</li> </ol> <p>The ISO Rules consultation process will make a final determination on the price setting mechanism in this case, but the AESO agrees with TransAlta that the market clearing price must be set by the marginal offer actually purchased as opposed to a cancelled trade.</p>
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### 3.4.8 Dealing with conflicting ancillary service obligations

Stakeholder	Stakeholder Comment	AESO Response
Capital Power	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.	The AESO will be initiating this discussion through the ISO Rules consultation process. Please see the response to ATCO in Section 5.0 as well.

### 3.5.3 Testing OR Facilities

Stakeholder	Stakeholder Comment	AESO Response
TransCanada	TransCanada supports consultation on testing issues.	Acknowledged. The AESO will consult on these issues during the ISO Rules consultation process.

### 3.6.2 AESO facilitate third party asset substitution

Stakeholder	Stakeholder Comment	AESO Response
ATCO Power	We appreciate the AESO continuing to find a solution to third party asset substitution as we believe this is an important feature for the competitiveness of the operating reserves market.	Acknowledged.
ENMAX	ENMAX supports third-party asset substitution.	Acknowledged.
IPCAA	<ul style="list-style-type: none"> <li>The AESO should focus on enabling self-supply as part of this redesign. This should be physical volume self-supply whereby volumes are netted against an obligation. This should not be a price swap. Price swaps will not work because the price paid by consumers in a lot of instances is not the prevailing energy price. For example, all RRO consumers pay a regulated price set a month in advance.</li> <li>Facilitating third party asset substitution would allow for greater competition and therefore lower prices. The AESO should enable procedures for a generator to determine which unit to provide OR from once volumes have been committed to.</li> </ul>	<p>The AESO will examine the possibility of registering physical net sales agreements for ancillary services. This would allow loads and generators to physically hedge ancillary services and would allow participants to choose contract terms suitable for their needs.</p> <p>Acknowledged.</p>
TransAlta	We would like the AESO in this redesign to consider separation of when AS volumes must be assigned to a specific unit and the actual trading of operating reserves products. The current system which requires that we determine before trading which asset to provide which amount of what service from creates an unnecessary administrative burden and leads to unnecessary trading errors that could be avoided if assignment took place after the close of the last reserve product.. We would propose that participants sell the MW's in the market and that shortly after close assignment for provision of the services is determined.	Acknowledged. The AESO is willing to consider the continued use of virtual units or assigning volumes after market close. The development of third party asset substitution will facilitate this flexibility because sellers can reasonably be held financially responsible for all trades entered into at D-1. In other words, trading errors would become the responsibility of the seller provided that the ability to liquidate a position exists via third party asset substitution.
TransCanada	TransCanada supports the development of third party asset substitution and believes there are practical solutions to implementing this market design feature. TransCanada believes the AESO need not be the intermediary for third party asset substitution or make third party confidential information available,	Acknowledged. The AESO will work with participants to facilitate a third party asset substitution service that is effective for participants and the AESO.

	<p>as the AESO would only need to provide the mechanism for substitutions to be recorded and recognized on its systems. TransCanada believes suppliers could locate their own counterparties in order to execute a substitution transaction, or, if the need for an intermediary is required, TransCanada believes one would emerge in the marketplace.</p>	
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**3.8.2 Continue to use force majeure definition in NGX Agreement**

Stakeholder	Stakeholder Comment	AESO Response
Capital Power	<p>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.</p>	<p>The ISO Rules consultation will consider this issue.</p>

**3.8.3 Improve transparency of OR providers**

Stakeholder	Stakeholder Comment	AESO Response
Capital Power	<p>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.</p>	<p>The AESO currently provides real-time information for providers of contingency reserves via the Current Supply Demand Report. It is expected that this information will be supplemented to include the full suite of OR products. The AESO is not aware of any concerns the existing information has created.</p>

### 3.9 Revision of ISO Rule Language

Stakeholder	Stakeholder Comment	AESO Response
TransCanada	TransCanada will comment on the detailed language of the rule clean-up through its participation in the TOAD project.	Acknowledged.

### 5.0 Phased Implementation

Stakeholder	Stakeholder Comment	AESO Response
ATCO	ATCO Power looks forward to being involved in the next stages of the consultation on the redesign of the operating reserves market. We believe there are some fundamental issues that still need to be resolved through the consultation process. A key issue we would like to see included in the next stage of consultation which was not listed by the AESO is dealing with conflicting ancillary services obligations. It is not appropriate to treat non-delivery of an OR product due to a contracted TMR obligation as a breach of an ISO rule. We look forward to working with the AESO to find a solution to this issue.	Acknowledged. The AESO will continue the consultation on this and other issues as ISO Rules are developed for the OR market.
Capital Power	It is our understanding that the AESO will need to develop 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.	OR products for the integration of wind energy will be pursued as required following stakeholder consultation as part of wind integration work. This work is independent of the OR Redesign initiative which changes procurement mechanics, and Phase I of the OR Redesign will not interfere with the wind program.
ENMAX	ENMAX supports a phased implementation.	Acknowledged.
IPCAA	<ul style="list-style-type: none"> <li>• The AESO's plan to conduct a post implementation review within 1 year of the final and complete redesign being in place is insufficient. This review should be ongoing and initiated in parallel with OR market redesign implementation.</li> <li>• The MSA and ratepayers should be involved in the</li> </ul>	<p>The AESO is planning to review the results of the Phase 1 redesign wherein all procurement will occur at D-1.</p> <p>The MSA routinely monitors the OR market and the AESO</p>

	<p>review process on an on-going basis. The review should include metrics for evaluating pricing impact. The pricing review should be in a form similar to the MSA review for the impact of implementing Quick Hits. Implementation should only go ahead if the AESO is willing to undergo a review in parallel with implementation.</p> <ul style="list-style-type: none"> <li>• If the result is higher prices without any benefits, the AESO should move forward with an alternative solution as an “off-ramp”.</li> <li>• If the redesign results in large price increase to loads, without any additional benefits, the AESO needs to consider the key problems with the redesign.</li> </ul>	<p>anticipates that the MSA will continue to monitor OR market outcomes and behaviour after the redesign.</p> <p>The AESO is committed to promoting a FEOC market. If the redesigned OR market does not meet this objective the problem will be addressed.</p>
TransAlta	<p>Beyond the two changes proposed in Q2 we believe that all changes in Phase 1 should be implemented together. If it is done in a phased manner there will be concerns as to how implementing only parts of the design change will create winners and losers between the competitors in the market.</p>	<p>The AESO does not agree that phased changes will create winners and losers, but is willing to discuss TransAlta’s concern.</p>

### 5.1 Changes to Current Practices

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	<p>Please see ENMAX’s comments above regarding moving all procurement to D-1.</p>	<p>Please refer to the AESO response to ENMAX in section 3.1.2 for the AESO position on procuring all volumes at D-1.</p>
IPCAA	<ul style="list-style-type: none"> <li>• Pricing information should be made as transparent as possible.</li> <li>• There needs to be a cost-benefit assessment and an indication of the probable impact on pricing. These need to be conducted in advance of implementation.</li> <li>• The AESO should involve the MSA to evaluate the pricing impact and to assess alternatives in the event</li> </ul>	<p>Acknowledged.</p> <p>The AESO will monitor market outcomes during Phase 1 of the implementation (D-1 procurement). To date, the AESO’s experience has been positive with moving more volumes to D-1. Many market participants do not participate in the D-2 through D-5 portion of the market.</p> <p>The AESO anticipates the MSA will continue to monitor the OR market outcomes post redesign. The AESO also notes that the MSA examined the move to increased procurement at</p>

	<p>that this redesign is implemented and prices do rise.</p> <ul style="list-style-type: none"> <li>The current OR market ranges from \$150 to \$250 million per year depending on energy prices. The proposed design eliminates a number of checks and balances in the existing mechanism with no substitutes to ensure competitive and reasonable pricing. A 10% increase in OR costs due to the re-design will cost Ratepayers an added \$20 million per year. This is an unfair exchange in order to provide some added simplicity for traders.</li> </ul>	<p>D-1 in its '2008 Year in Review' study.</p> <p>The proposed redesign will reduce barriers to participation, lower the administrative burden of selling OR and open the market to more open and transparent competition. The AESO will review the performance of the market post implementation.</p>
<p>TransAlta</p>	<p>TransAlta would ask for more clarity and some consultation on proposed changes to Transparency on the OTC market before these changes are implemented.</p> <p>We would also point out that moving to "D-1 only market" increases the risk for both the participant and the AESO that an error in the ETS system could result in a participant not offering the amounts intended. Under the proposed design you only have one chance to get it right. In others words larger consequences for an error in trading. We would encourage the AESO to test proposed IT changes thoroughly to ensure that the likelihood of these errors is extremely low.</p> <p>A suggested IT change is an upload to NGX. The AESO should provide for the ability to upload offers to the NGX market using a simple and standardized template that reduces the need for multiple uploads. Ideally the template would be a straightforward CSV files similar to what is used for ETS uploads. The current files that are uploaded to NGX are fairly simple and can only be used for one market at a time. We would like to see something more sophisticated so you can upload everything at once.</p>	<p>Acknowledged. The AESO will provide documentation on the proposed changes to the existing OTC reports.</p> <p>The AESO currently purchases the majority of its OR needs at D-1. Within the current practices the OTC market remains an option for procuring required volumes after market close.</p> <p>The AESO acknowledges the 'single chance' issue when the market redesign is fully implemented. IT reliability and improved trading tools will be consulted on during the actual implementation phase of this project. The AESO is committed to reducing the administrative burden associated with the OR market as this will encourage greater participation and thereby competition.</p> <p>The AESO also reiterates its comment that third party asset substitution will allow the AESO to ensure that volumes purchased from NGX are binding on the seller to the extent there is not an AOR. The AESO will work with NGX and sellers to develop IT tools to minimize any risk to sellers associated with trading errors.</p>