

AESO Recommendation Paper OR Market Redesign Review  
Stakeholder Comment Matrix  
March 25, 2010

3.1.1 Create a single trading platform to concentrate liquidity and establish more meaningful OR price indices

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	We support the overarching principle to encourage participation in the OR market. It is not clear how the redesign makes it easier for load participants to participate vs. the previous ability to offer term products.	The redesigned OR market is less complex and the time commitment required to participate is less with an intention to encourage participation for new and existing OR providers. A participant wishing to enter into a term transaction will have to do so with a counterparty other than the AESO. If a participant wishes to physically sell OR every day, they could submit a standing offer each day at D-1 and be a price taker.
ENMAX	ENMAX supports the use of a single trading platform.	Acknowledged.
EPCOR	EPCOR supports the AESO efforts to establish more meaningful OR price indices. However, in the event the AESO is not able to procure sufficient supply to meet their needs on the exchange, EPCOR would like more clarity regarding the specific actions that will be taken by the AESO to obtain the required volume. EPCOR believes that the AESO should accelerate its plans to review the market suspension rule in case this design does not have the anticipated outcome of adequate supply.	<p>The current market has sufficient liquidity, which is expected to continue and even improve given the changes in the market design. However, the AESO would meet its obligations to secure OR providers during a market supply shortfall by conscription. These conscripted volumes will be paid under Article 11.3 of the AESO's Terms and Condition of Service. As mentioned in section 3.7.2 the AESO has only had to conscript OR volumes approximately once every three to four years. The AESO expects conscription to continue to happen rarely, if at all, as the OR market is competitive.</p> <p>The market suspension rule is being consulted on at this time and the OR market is a consideration in the consultation.</p> <p>The AESO is confident the OR market design will result in greater participation and competitive outcomes. The AESO does not propose accelerating the stakeholder consultation process for the market suspension rule.</p>

		Trade indices will not be affected by volumes that are conscripted as these are out of market actions.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA concurs that all procurement should be on an open and transparent platform	Acknowledged.
Northstone Power Corp	Northstone sees value in a single trading platform. We do not support the current system where certain traders submit very high offers knowing that other traders with more reasonable offers along with the equilibrium system will be beneficial to them.	Equilibrium pricing is a fundamental element of the market design.
TransAlta	TransAlta supports the AESO moving to a single trading platform and believes this will lead to a reduced administrative burden for participants and the AESO. Further, it will provide clarity around all products traded, associated rules and timelines. This has been unclear with OTC products in the past.	Acknowledged.
TransCanada	TransCanada would like the profile hours included in the calculation of the indices for better management and clarity on what influences the indices.	The AESO agrees that profile OR volumes should be considered in the creation of OR price indices. Market participants will be encouraged to work with NGX and the AESO in the creation of these indices.

### 3.1.2 Minimize AESO influence - submit bid volume requirements in auction format

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	The ADC has a concern about the potential for significant price increases for OR under this model and a potential lack of competition for the required volumes.	<p>The AESO believes the OR market is competitive and as per section 3.0 of the AESO's Recommendation Paper, "The [AESO's] recommendations are consistent with providing an efficient OR market structure that better facilitates participation in a transparent manner."</p> <p>Section 6.1 mentioned that a Post implementation review will take place and consider amongst other things level of participation; amount of liquidity and market prices; and any out of market actions. Having said that higher prices alone may not suggest a problem depending on other market considerations.</p>

ENMAX	ENMAX supports the concept that the AESO should seek to minimize its influence on market prices in all areas, including ancillary services. Consequently, ENMAX supports a market design in which the AESO submits volume requirements only.	Acknowledged.
EPCOR	EPCOR agrees that the AESO should not have undue influence over market prices or outcomes and supports the AESO recommendation to post only un-priced volumes.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	<p>IPCAA is concerned that the single pricing mechanism will be non-competitive during periods of potential supply shortfalls. IPCAA opposes the use of a single clearing price and recommends the use of a pay-as-offered mechanism.</p> <p>The single clearing price indexed to the hourly price provides a “free option” to suppliers at the cost to consumers – suppliers should pay for this optionality.</p>	<p>The AESO believes the single clearing price mechanism supports the FEOC market more so than a pay as bid model. Please see the AESO’s response to Stakeholder Comments on section 3.2.3 for further reply in this regard.</p> <p>It is also unclear to the AESO how the pricing mechanism will be non-competitive during periods of supply shortfalls. In times of scarcity, any functioning price mechanism should reflect that scarcity via higher prices.</p> <p>By indexing OR to pool price, OR providers (generators and load) are hedged against pool price risk (pool price increasing and missing an opportunity to sell energy). Therefore, the risk premium in the OR price should be lower than in a pay as offered model where this risk is priced in. The AESO does not believe it is efficient to create a risk for suppliers via its pricing design when that risk is unnecessary.</p>
Northstone Power Corp	Northstone agrees	Acknowledged.
TransAlta	TransAlta does not believe that it is necessary for the AESO to reduce its influence in the market. We believe that the AESO created a viable forward market and are concerned that the movement to D-1 will result in all transactions occurring there. We understand that the AESO is reviewing Third Party asset substitution and Self Procurement but are skeptical if and when these will be implemented and even then are unsure if they will result in a viable forward market.	A significant issue with the OR market as noted by participants and agreed to by AESO has been the single buyer model. The AESO is committed to examining multi buyers and asset substitution as part of Phase II of the OR redesign. Phase I of the redesign is pivotal in addressing residual issues related to AESO acting as a “buyer” for loads on a forecast basis. The proposed market model moves the AESO closer to a market facilitator role from an active participant role. The AESO will rely on the market to meet its obligations and allow the market to function without an active presence in procurement.

		<p>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>
TransCanada	TCE agrees	Acknowledged.

### 3.1.3 Minimize AESO influence - D-1 auctions

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	The D-1 auctions make it more administratively burdensome for loads to participate in this market. The OR market is not their primary business and they are not set up with trading desks or experienced personnel to bid daily. Loads will be forced to use agents or sell forward financially, but expect the cost of doing so may make participation of limited value.	<p>The AESO's recommended OR changes, considered together, will make the OR market less complicated and easier to understand and participate in than the current design. It is expected that this change will better encourage and enable all participants, including load, to participate in the OR market, so should increase load participation from current levels. With an indexed price and blind offers, standing offers can be submitted.</p> <p>The AESO is not aware of any impediments to parties entering into financial transactions in advance of D-1.</p>
ENMAX	ENMAX is not convinced that the elimination of all but D-1 auctions is either necessary or desirable because of the potential for the "squeeze" the AESO describes in its paper. Since the ability to trade at D-n must be preserved in any case (for weekends and holidays), there would appear to be minimal incremental cost to preserving the AESO's ability to trade a quasi-random percentage of its requirements at D-n. (Note that ENMAX is not suggesting weekly or monthly procurement.) Trading at D-n does not reduce liquidity on average since the total volume of AS does not change as a result of the trading schedule. The AESO's influence on the market is no greater since it would still be posting	<p>See section 3.1.3. The AESO believes that the OR market is competitive, and that D-1 auctions will result in competitive outcomes.</p> <p>Other considerations and benefits of just a D-1 auction are:</p> <ul style="list-style-type: none"> <li>- reduces daily time commitment for sellers as D-2 through D-5 auctions no longer take place;</li> <li>- promotes liquidity and participation; and</li> <li>- D-1 is more closely aligned with the energy market model.</li> </ul>

	volumes only, and providers' risks can be managed through asset substitution.	Since the summer of 2008, the AESO changed its procurement methodology and procures the majority of its OR requirements at D-1. Since then the AESO has not encountered circumstances that it would categorize as non competitive. In fact, the AESO believes the market has been functioning better with a material increase in the number of competing offers and competitive outcomes.
EPCOR	EPCOR agrees that the AESO should not have undue influence over market prices and outcomes and recognizes that there are efficiency gains to be had from increased concentration of supply in a single trading period. EPCOR continues to have a concern that the D-1 market design may not produce sufficient supply to meet the AESO needs. EPCOR believes that the AESO should accelerate its plans to review the market suspension rule in case this design does not have the anticipated outcome of adequate supply.	Acknowledged.  The AESO believes the market has been functioning more effectively, with a material increase in the number of competing offers and competitive outcomes, since the majority of OR requirements have been purchased at D-1.  The market suspension rule is being consulted on at this time and the OR market is a consideration in this consultation.
Industrial Power Consumers Association of Alberta (IPCAA)	Cornering of a mandatory product with transparent volumes is a major concern with respect to the pricing mechanism. There is nothing in the proposed design that suggests how this will be mitigated other than after-the-fact reviews by MSA. MSA reviews will not be completed until long afterwards and policing will be too difficult.  Competitive procurement should be ensured by the market design not by post transaction reviews	The AESO believes the OR market is competitive and as per section 3.0 of the AESO's Recommendation Paper, "The [AESO's] recommendations are consistent with providing an efficient OR market structure that better facilitates participation....." The market has evolved since the original design and concerns associated with "cornering" are no longer relevant.  Since the summer of 2008 the AESO changed its procurement methodology and procures the majority of its OR requirements at D-1. Since then the AESO has not encountered circumstances that it would categorize as non competitive. In fact the AESO believes the market has been functioning better with a material increase in the number of competing offers.  As per the AESO recommendation a post implementation review of the OR market will take place. If the review suggests that non-competitive outcomes are occurring, changes to the market design will be contemplated following the review.
Northstone	Northstone currently prefers the week ahead market as it allows	With auctions only taking place at D-1, there is more concentrated

Power Corp	us to better schedule our operators. If we were able to secure OR volumes on a regular basis on D-1 auctions then we would support this change.	volume in a trade period. Multi-day auctions also force the AESO to participate in the market by determining volume splits for each day. and one of the main goals of the redesign is to reduce AESO participation in the market.] The AESO believes that the benefits of a single day auction outweigh any potential risks.
TransAlta	TransAlta does not believe that it is necessary for the AESO to reduce its influence in the market.	A significant issue with the OR market as noted by participants and agreed to by AESO has been the single buyer model. Phase I of the redesign is pivotal in moving the AESO closer to a market facilitator role from an active participant role
TransCanada	TCE agrees	Acknowledged.

### 3.2.1 Add to the suite of D-1 OR products

Stakeholder	Stakeholder Comment	AESO Response
ATCO	ATCO Power believes that the new products represent an unnecessary complexity that can be avoided by transacting hourly products (see 3.2.2).	The AESO has revised its recommendation as outlined in the cover letter and revised Recommendation paper. It will be proceeding with an hourly clearing market for shaped products. The AESO believes this addresses the concerns over undue complexity and allows participants in the shaped market maximum flexibility.
ENMAX	ENMAX supports the introduction of products that will help the AESO procure all of its AS requirements without resorting to conscription.	Acknowledged.
EPCOR	EPCOR supports a full range of D-1 OR products. Any additional products which will ensure that the AESO has adequate supply are encouraged.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA agrees with the added products, although pricing mechanism is of concern	Acknowledged.  The pricing methodology in the revised recommendation is consistent with the clearing model for block active products. This methodology is consistent with the energy market and supports a FEOC market. Please see section 3.3.2 for more detailed discussion.

Northstone Power Corp	The addition should be positive	Acknowledged.
TransAlta	We support the addition of Profile Active OR and Shaped Standby OR to the list of NGX traded products.	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

3.2.2 Continue to use On/Off peak products instead of hourly products

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	To support load participation, on/off peak products fit better with production scheduling and price responsive load. A price responsive load would find it difficult to operate their facility economically and be ready to be armed for hour blocks at a time.	Acknowledged.
ATCO	<p>ATCO Power supports an hourly equilibrium AS market for all products as a phase one solution to the existing design. We feel that such a design would better compliment the energy market and offers simplicity and price fidelity.</p> <p>ATCO would like to elaborate on the three advantages mentioned by the AESO and point out additional advantages of trading hourly products:</p> <ul style="list-style-type: none"> <li>• Maximum flexibility for participants, allowing a seller to price each hour differently and submit different volumes for each hour if desired. This would increase the depth of the market since it allows participants that operationally can't supply all hours to at least partially participate.</li> <li>• Eliminating the six profile products, and simplifying the market by combining base and profile volumes together.</li> <li>• Elimination of the artificial selling logic that precludes the cheapest supply from clearing the market.</li> <li>• Scheduled time required for transacting would be reduced.</li> <li>• ATCO agrees with the AESO that it could mitigate some of the operational challenges faced with real time transitioning from on peak to off peak providers (and vice versa)</li> <li>• An hourly clearing price is a better reflection of the supply and demand in each hour. Hourly pricing would eliminate the "cherry</li> </ul>	<p>The AESO notes that six stakeholders agree with the recommendation to continue using the on and off peak products, while two stakeholders prefer hourly. The AESO recognizes the tradeoffs with each design, however prefers the on and off peak design as this is more consistent with the incremental approach to the redesign. Also, given its preference by most stakeholders, it should better ensure participation.</p> <p>The AESO recognizes that the block trading model also allows participation from loads and generators that benefit from the ability to schedule energy and OR sales over periods longer than an hour. The use of block products for baseload OR needs and hourly products for shaping needs is a compromise solution that allows a variety of participants to compete in the segment or segments of the market that are best suited to their situation.</p> <p>The AESO's revised recommendation is that an hourly clearing market be used for shaped volumes. This recommendation recognizes the flexibility provided by the hourly clearing model and also allows baseload volumes to be supplied by block providers. This recommendation addresses many of the concerns over the complexity associated with shaping logic and allows a clear market price to emerge for hourly level OR needs.</p>

pick” behaviour that is a concern of the AESO as participants could price their volume for the perceived ‘weak’ hours accordingly.

- Including the option for participants to select their offers as flexible or inflexible as is done in the energy market provides suppliers with an option to create more operational certainty. This option is not available to shape-providers in the current proposal.
- An hourly AS market is more consistent with the energy market.

ATCO Power would like to provide the following comments on the perceived disadvantages listed by the AESO:

- Introducing 144 products on a regular trading day. – While it is true that 144 different products would clear in a given day (compared to the 12 current products) offering the products would actually be simpler for participants. Every participant would only need to provide 3 offers for a given day since an IT solution could be easily implemented to allow participants to simplify their offers to provide the same price for each hour and to track volumes appropriately. Anything beyond that is optional flexibility.
- Increasing complexity and logistical challenges for sellers which could also contribute to the number of errors. – An hourly design is much simpler than the current design that bifurcates the market and introduces a complex selling logic. Working group discussion have shown that there is still confusion among participants regarding the current logic. Since the ability to differentiate hours is optional it doesn’t create challenges but provides opportunities.
- Creating a potential barrier to entry for smaller participants. – It is unclear to ATCO Power how reducing the number of required offers and providing additional flexibility could be a barrier to participation. ATCO believes the contrary to be true.
- Creating more operational uncertainty for suppliers hour to hour. – Under an hourly design suppliers would be fully aware of their ancillary services obligations on a day ahead basis. Given that ancillary services providers need to be able to respond to directives within 10 minutes, following hourly dispatches based on a schedule that is known day ahead should not negatively impact suppliers.

	In our view, the Phase I design would benefit from further consideration of an hourly equilibrium market alternative and would support further discussion on the matter.	
ENMAX	ENMAX supports the exploration of an hourly market, but agrees that it is not necessary to implement one in Phase I of the AS market redesign. ENMAX does not believe the ability to forecast pool price at D-1 versus T-2 is an issue, however, because of the indexing of AS prices to pool prices.	Acknowledged.
EPCOR	EPCOR agrees with the AESO recommendation to continue to use on and off peak products for the reasons listed in the recommendation paper. In addition EPCOR believes that the introduction of hourly products could have a negative impact on the reliable operation of the electric grid because of the possibility of hourly changes to the units providing reserves.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA opposes a move to T-2. This would provide suppliers with even greater optionality. If pricing point moved to T-2, suppliers could release some OR to the energy market if it is not needed for OR. The highest priced supply would be released first, resulting in a double benefit for suppliers and additional payments for load to make.	Acknowledged.
Northstone Power Corp	We strongly agree using on/off peak products but our preference is for HE 23 to be classified as off peak and possibly HE7 be classified as on peak. Based on our trading experience the demand for power and corresponding pool prices always drops for HE 23 therefore we don't see the logic to include this hour as on peak plus this change would be beneficial to our operators schedule.	The AESO is examining a change to the on/off peak definitions in order to create contiguous block products for the off peak period.
Powerex	Powerex encourages the AESO to move to an hourly market as soon as possible. The benefits of an hourly market over a day-ahead, on/off-peak market are numerous and will permit market participants to more accurately price OR in the real-time/T-2 market.	Acknowledged. The OR market proposal is a phase 1 approach to provide improvements in the market with all volume requirements being procured at D-1. If the market were to move closer to a T-2 market, further hourly products would be considered. This would be part of future design phases. Please also see AESO response to ATCO above.
TransAlta	We support the continued use of On/Off peak products.	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 3.2.3 OR indexed to pool price, marginal pricing for homogenous products and pay as offered for non-homogenous products

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	Agree that pricing should be indexed to pool price.	Acknowledged.
AltaGas Ltd.	AltaGas Ltd. supports this, but reminds the AESO that if standby prices are to be based on active pricing, active products must be traded before standby products.	Acknowledged. The AESO recommends active products be procured prior to standby.
ENMAX	<p>The rationale for using pay-as-offered for active profile on- and off-peak products is not clear. The fact that each provider will likely be providing different volume amounts in different hours is not much different from the energy market situation, in which base-load, mid-range, and peaking units tend to have different operational requirements (if not obligations), and where marginal units have somewhat different moment-to-moment obligations than sub- or supra-marginal units.</p> <p>Pay as offered for standby units is appropriate, as those providers are selling an “option” on OR and, as the AESO states, dispatch probability will be a function of the premium.</p>	<p>In the AESO’s revised recommended design, active hourly shape volumes will be priced based on a clearing mechanism. Each hour could clear at a different price based on required volumes and available supply for that hour, but all providers of active hourly shaped OR, in the same hour, will receive the same price.</p> <p>The active hourly shaped price will not be related to the corresponding active baseload price for that hour. Active baseload products and active hourly shape products will be independently priced on a clearing model. The price for a single hour is expected to differ from the price for baseload products covering the same hour.</p> <p>In the revised recommendation paper, the AESO plans to implement clearing prices for the standby market premium.</p>
EPCOR	<p>EPCOR supports the current pricing mechanisms for OR as they allow market participants to structure their offers such that they are indifferent between selling energy and operating reserves, resulting in a more efficient allocation of resources.</p> <p>EPCOR is of the view that marginal pricing is a more efficient pricing mechanism than pay-as-offered for homogeneous products as market participants do not have the incentive to</p>	<p>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>Benefits of Single Price Mechanism</p> <ol style="list-style-type: none"> <li>1. Encourages offers structured to reflect cost to provide rather than estimated clearing prices.</li> <li>2. Increase the likelihood that the most efficient OR providers</li> </ol>

	<p>shadow bid the marginal offer. The use of a marginal clearing price for homogenous products reduces participation costs and has the potential to increase liquidity resulting in increased competition. Pay-as-offered also has the potential to disrupt the efficient dispatch of resources in the event a more efficient unit inadvertently prices himself out of merit in attempt to shadow bid the marginal unit.</p> <p>Although EPOCR supports the use of a marginal clearing price for homogenous products EPCOR understands that the pricing of non-homogenous products is more complex and may not be directly comparable as is the case with homogenous products.</p>	<p>are selected to provide by eliminating the need to “shadow price.”</p> <ol style="list-style-type: none"> <li>3. The daily and intra day OR market closes lends itself to the outcome that all participants would price at a similar level under a pay as bid design, reducing and likely eliminating any potential benefits to load from pay as bid.</li> <li>4. Allows easier participation in the market for smaller players via standing offers and lower information/time requirements for obtaining the competitive price.</li> <li>5. Consistent design with energy market is appropriate given the products are generally substitutes for providers.</li> </ol> <p>Benefits of Indexed Pricing</p> <ol style="list-style-type: none"> <li>1. Reduces risk associated with choosing between OR sales and energy sales by using basis pricing.</li> <li>2. There is no obvious benefit for load to creating risk for participants in choosing between energy and OR.</li> <li>3. Lower risk should reduce the overall costs of OR.</li> <li>4. Recognizes that for many providers OR is a substitute for energy market sales.</li> </ol>
<p>Industrial Power Consumers Association of Alberta (IPCAA)</p>	<p>IPCAA opposes the use of single clearing price. Suppliers should be made responsible for their offers. Competition is much more effective if supply is responsible for their offers. Why should suppliers receive a windfall benefit if they were prepared to sell at a lower price than the marginal offer?</p> <p>Use of a single clearing price mechanism in the energy market is not a sufficient reason to use the same flawed mechanism in the OR market. Load inherently ends up paying more than is necessary under the single clearing price mechanism.</p> <p>The primary justification given for use of a single clearing price in the energy market is that suppliers would all price at the same highest marginal offer if they knew the demand for each SMP interval, and the hourly mechanism operates in real-time; However this is not the case with OR which is procured a day in advance and suppliers have adequate time to consider firm supply offers at which they are prepared to supply</p>	<p>The AESO reiterates its position 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. Please also see AESO response to EPCOR on the previous page.</p>
<p>TransCanada</p>	<p>TCE agrees</p>	<p>Acknowledged.</p>

### 3.2.3.2 Activation Price Set to Clearing Price for base load Active Reserves

Stakeholder	Stakeholder Comment	AESO Response
EPCOR	<p>EPCOR believes that the pricing mechanism in the OR market should provide greater compensation for Active reserves than for Standby reserves as Active reserves should be considered a superior product.</p> <p>The current pricing mechanism, which requires the seller to specify both a premium and an activation price, prevents the efficient optimization of offers. As EPCOR supports the AESO efforts to remove themselves from the role of actively procuring OR, we recognize the need to simplify the current pricing methodology for Standby reserves by fixing one of the two parameters in order to prevent undue AESO influence.</p> <p>EPCOR encourages the AESO to carefully consider the incentives that are created by setting the activation price equal to the market clearing price for base load Active reserves. Although generally supportive of the AESO proposal, EPCOR urges the AESO to consider the potential outcomes that could arise given these proposed changes and the impact of varying activation rates.</p>	<p>The AESO agrees with EPCOR that, overall, an active provider should be paid more than a standby provider. In the AESO's recommended design there will be some hours when a standby provider will be paid more than an active provider, as with the design today. However, it is expected that the recommended design would result in the same outcome as today, where on an overall basis an active provider is paid more than a standby provider.</p> <p>The AESO further suggests that as long as the design does not create perverse incentives, the market should dictate which service receives the greatest compensation. The AESO is not aware of perverse incentives created by setting the activation price equal to the market price for base load Active reserves.</p>

### 3.2.4 OR market price cap equal to energy market price cap

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	<p>Concern over potential cost to consumers if adequate competition is not realized.</p> <p>Also, paper describes that generators would be paid the pool price when they are directed to provide spinning or supplemental reserves. Would this apply to load that is also providing</p>	<p>The current OR market is competitive and the AESO expects this to continue or improve.</p> <p>The economics of a load participant versus generating facility selling OR are different. When a load participant is dispatched to</p>

	<p>supplemental reserves and receives a directive to reduce load – i.e. would they receive a pool price payment to reflect the megawatts they are providing to the system? If not, why the discrimination for providing identical services?</p>	<p>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 and generator when under a directive to provide OR. The AESO therefore recommends that the OR Rules reflect this difference between resources, which is in place today.</p>
<p>ENMAX</p>	<p>Capping the price of OR at the pool price cap makes sense only for those products that have values equal to or less than energy. It is ENMAX's understanding that spinning reserve would be given up before shedding firm load, so the energy market cap makes sense for that product. However, it is also ENMAX's understanding that regulating reserve must be maintaining even in the face of firm load shedding, which implies a value for regulating reserve above that for firm energy. Consequently, the cap for regulating reserve should be somewhat higher than \$1000/MWh.</p>	<p>The AESO agrees with ENMAX that consideration should be given to the operational treatment of operating reserve providers in relation to the energy market and the shedding of firm load.</p> <p>ENMAX's understanding is correct that regulating reserve must be maintained even in the face of firm load shedding. Under the AESO's recommendation a regulating reserve provider is able to receive up to \$1999.98/MWh (\$999.99/MWh multiplied by 2). This is materially higher than the \$999.99/MWh a provider of energy can receive. See section 3.2.2. in the AESO's Recommendation Paper.</p>
<p>EPCOR</p>	<p>EPCOR disagrees with the AESO recommendation to set the price cap in the OR market equal to the price cap in the energy market. It seems inappropriate that the AESO recommend that sellers 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. Active reserves 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. Although the AESO may feel it is necessary to cap the price of OR, EPCOR is of the view that the price cap for OR should be greater than the price cap for energy in order to accurately reflect</p>	<p>OR providers will be permitted to sell OR at a positive index to pool price.</p> <p>During times of scarcity, spinning and supplemental OR are not valued more than energy. During times of scarcity spinning and supplemental OR providers are directed to provide energy instead of ancillary services.</p> <p>See response above on total compensation an OR provider receives versus the energy market.</p>

	<p>the additional value of OR, particularly in times of scarcity.</p> <p>EPCOR would like further clarification as to what is meant when the AESO states ‘As an added incentive, the AESO also recommends that an OR provider be paid pool price any time they generate MWs while providing...’ It is EPCORs understanding that this is already in place and thus what the AESO is proposing is not an added incentive.</p>	<p>EPCOR’s understanding of the AESO statement is correct – this recommendation is in place today. The AESO stated “an added incentive” in order to recognize the incremental compensation a generator can utilize in the OR market versus the energy market.</p>
<p>Industrial Power Consumers Association of Alberta (IPCAA)</p>	<p>IPCAA disagrees with the OR price limit being set at the price cap for energy, and with the use of index pricing. Suppliers should be required to take the risk between the OR and the energy market. It should not be the responsibility of loads to assume and pay for this risk – without some form of compensation.</p>	<p>The AESO reiterates its position that indexing OR prices to the energy price best supports a FEOC market for the following reasons:</p> <ol style="list-style-type: none"> <li>1. Reduces risk associated with choosing between OR sales and energy sales by using basis pricing.</li> <li>2. There is no obvious benefit for load to creating risk for participants in choosing between energy and OR.</li> <li>3. Lower risk should reduce the overall costs of OR.</li> <li>4. Recognizes that for many providers OR is a substitute for energy market sales.</li> </ol> <p>The AESO suggests that the recommended price mechanism reduces the risk of supplying OR relative to energy. It is not clear what risk loads are assuming via the price design as it facilitates more efficient decision making between the two markets.</p>
<p>Northstone Power Corp</p>	<p>Agree</p>	<p>Acknowledged.</p>
<p>TransAlta</p>	<p>Ancillary reserves are a premium market and should be priced as such. Premiums can be capped at \$999 in correlation with the energy market, but total compensation should equal the premium plus the energy component. If total compensation equals greater than \$999, then the proper price signal is being sent to the market that more participants/reserves are required in the reserves market. If total compensation is capped at \$999, as the SMP approaches \$999, participants will be less motivated to provide reserves as it is much easier, and just as lucrative, to provide energy as it is reserves. Thus, as SMP approaches \$999, when reserves are needed the most, reserves will likely be less</p>	<p>The AESO recommends that the total <u>OR</u> compensation an OR provider can receive is no greater than \$999.99/MWh. Any revenues received from the energy market will be in addition to revenues from the OR market. See AESO response to ENMAX above.</p>

	<p>available. By allowing generators the opportunity to earn greater compensation in the reserves market, as compared to the energy market, the proper price signals will be sent encouraging current and future market participants to fit/retro-fit their operations to supply operating reserves. This philosophy is consistent with a deregulated market design.</p>	
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3.3.1 Apply selling logic for profile and non-standard offers

Stakeholder	Stakeholder Comment	AESO Response
AltaGas Ltd.	<p>AltaGas Ltd. understands why, for administrative simplicity, the AESO supports the use of number of hours as the primary factor for its selling logic.</p> <p>However, we believe this is inconsistent with the principles of efficient market pricing. The AESO should be using price as the primary factor for all market decisions.</p>	<p>The AESO's revised recommendation does not apply selling logic but instead uses an active hourly clearing product for procuring shaping volume requirements. Price will determine which sellers get the volume in each hour, and each seller in a given hour will receive the clearing price for that hour on volumes sold in the hourly market. Baseload volumes will be treated separately and paid the clearing price from the baseload market.</p>
ATCO	<p>Adopting a selling logic that clears volume before price does not make sense as a current practice or as part of a redesign. The party that offers the best price should be the party that supplies the reserves to the market, not the party that provides the most volume.</p> <p>Changing the profile market to an hourly market automatically removes the need for selling logic, and creates a more FEOC market. In an hourly market participants are able to appropriately price a product, which should alleviate any concerns that not all the volume will be secured.</p>	<p>Acknowledged. See AESO response to AltaGas above.</p>
ENMAX	<p>ENMAX supports the use of transparent and logical criteria for selecting offers when OR products have different volume requirements in each hour. However, ENMAX does not agree that longer-duration offers should be selected ahead of shorter-duration offers if the latter are priced lower. It does not make sense, for example, to choose 25 MW offered for 8 hours at \$999/MWh over 50 MW offered for 4 hours at \$50/MWh. Also, it is not clear why more economic "non-conforming" offers would not</p>	<p>Acknowledged. See AESO response to AltaGas above.</p>

	be accepted over more expensive “conforming” offers. In other words, it is not clear that a distinction between conforming and non-conforming offers is needed.	
EPCOR	EPCOR understands that the AESO currently uses this methodology when procuring non-standard products and supports the AESO recommendation to maintain the current logic but to improve the process through automation. However, if the proposed selection logic is somehow different from the method currently in place EPCOR seeks clarification regarding any changes.	Acknowledged. See AESO response to AltaGas above.
Industrial Power Consumers Association of Alberta (IPCAA)	If this works here it should work for all OR supply	The AESO’s revised recommendation is to implement an hourly clearing market for shaping volumes.
Northstone Power Corp	Agree.	Acknowledged.
Powerex	--It is unclear whether a market participant must price each of the hours when volume is required at the same price or if the hours may be priced independently. Please confirm. --Confirm that the AESO will clear all conforming bids first, regardless of whether a non-conforming bid is less expensive.	The AESO’s revised recommendation is to implement an hourly clearing market for shaping volumes.
TransAlta	No concerns.	Acknowledged. See AESO response to AltaGas above.
TransCanada	TCE would like to see error checking logic included that would, in addition to other checks, prevent participants from inadvertently over-selling AS, including for different products. i.e. if Reg is sold then contingency reserves become unavailable.	Acknowledged. Once a final OR design is decided upon, market participants will be encouraged to work with the AESO and NGX in the development of tools to better ensure participation.

### 3.3.2 A reasonable procurement schedule

Stakeholder	Stakeholder Comment	AESO Response
AltaGas Ltd.	AltaGas Ltd. supports this recommendation so long as recommendation 3.4.3 (blind offers allowed) is implemented. Otherwise, AltaGas Ltd. suggests grouping all reserve products together (i.e. all Regulating, then all Spinning, then all	Acknowledged. The AESO recommends blind offers. See AESO response to EPCOR below.

	Supplemental) so that market participants who can only sell one type of product do not need to dedicate a large block of time to offering reserves.	
ATCO	It is very important that adequate time is given for all products to clear, especially for participants with many plants. Extended time frames need to be incorporated to account for long weekends, and holiday volume. Twenty minutes is the minimum time that would be required by ATCO Power.	Acknowledged. See AESO response to EPCOR below.
ENMAX	ENMAX supports keeping the procurement schedule that is currently in place. A 10-minute wait time between closings is preferable to a 20-minute wait time, which is likely to make participation more difficult for some parties.	Acknowledged. See AESO response to EPCOR below.
EPCOR	EPCOR believes that this procurement schedule is appropriate in terms of its order but feels that the amount of time between the close of a market and open of the next is excessive. EPCOR suggests that 10 minutes would be sufficient (as opposed to 20). Any OR redesign should be superior in efficiency and automation to the current system and thus EPCOR sees no reason why the time frame should increase from the 10 minutes currently allotted. EPCOR argues that increasing the time commitment required for participation in the OR market effectively increases participation costs which could negatively impact liquidity.	<p>Acknowledged.</p> <p>The comparison of market closing in the existing design versus the redesign is legitimate, but only for some products, as some OR products will be new. With the existing OR design, active markets close within 10 minutes of each other and the AESO is not aware of any issues this causes with market participants. The AESO is therefore revising its recommendation to 10 minutes between the three active (baseload) markets.</p> <p>In the existing design (baseload) standby volumes are consistently transacted within seconds or a few minutes of the market opening and the AESO therefore recommends 10 minutes between the three (baseload) standby markets.</p> <p>The standby hourly products would be a new product and there is no established time frame for this product. The AESO also appreciates that a seller would likely require more time to establish an offer for a product that has different volume requirements in each hour and is therefore recommending 20 minutes between each of these markets.</p> <p>The active hourly products for procuring shaping volume requirements would be a new product to NGX. In the existing OR</p>

		<p>design these volumes are procured OTC using spreadsheets, email and faxes. A seller having to establishing an offer that has different volume requirements in each hour would likely require more time and the AESO is therefore recommending 20 minutes between each of these markets.</p> <p>The AESO's revised recommendation is as follows:</p> <ul style="list-style-type: none"> <li>○ 8.30 a.m. All markets open – AESO posts volume requirements</li> <li>○ 9.00 a.m. Close Active Reg</li> <li>○ 9.10 a.m. Close Active Spin</li> <li>○ 9.20 a.m. Close Active Sup</li> <li>○ 9.40 a.m. Close Profile Active Reg</li> <li>○ 10.00 a.m. Close Profile Active Spin</li> <li>○ 10.20 a.m. Close Profile Active Sup</li> <li>○ 10.30 a.m. Close Standby Reg</li> <li>○ 10.40 a.m. Close Standby Spin</li> <li>○ 10.50 a.m. Close Standby Sup</li> <li>○ 11.10 a.m. Close Standby Reg Hourly (if required)</li> <li>○ 11.30 a.m. Close Standby Spin Hourly (if required)</li> <li>○ 11.50 a.m. Close Standby Sup Hourly (if required)</li> </ul> <p>This schedule could be subject to review post implementation to see whether amendments are necessary.</p>
Industrial Power Consumers Association of Alberta (IPCAA)	Schedule is fine	Acknowledged. See AESO response to EPCOR above.
Northstone Power Corp	We support 10 -20 minutes between market closes	Acknowledged. See AESO response to EPCOR above.
Powerex	Powerex encourages the AESO to revisit the 20 minutes between markets and implement a much more compressed timeline.	Acknowledged. See AESO response to EPCOR above.
TransAlta	We support the AESO's proposed schedule. We would suggest a review of the schedule once it has been in place for a year. This	Acknowledged. See AESO response to EPCOR above.

	would allow any needed changes to be considered.	
TransCanada	TCE agrees	Acknowledged. See AESO response to EPCOR above.

### 3.3.3 Fix market closes and create price discovery

Stakeholder	Stakeholder Comment	AESO Response
ATCO	ATCO Power supports the AESO recommendation to have a fixed close and not a random close. Price discovery is possible on a daily and intra-daily basis.	Acknowledged.
ENMAX	ENMAX agrees that random closings are not required. Having several related markets close every day will provide adequate price discovery.	Acknowledged.
EPCOR	EPCOR supports the use of a fixed market close in the interest of facilitating a market that has low participation costs	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	Fixed market closes will limit competition and result in load paying more than necessary for OR. Random closes work extremely well in RRO auctions and would be effective in OR auctions as well. The only valid downside that has been presented against the use of random closes is the time commitment involved. Traders have the option of modifying their offer during the random close period; however, if their offer is competitive, they will not need to do so. There are only three active products being procured each day and five minute random closes would add only 15 minutes to the trade schedule – a small increment in time to get competitive activity. While IPCAA is in support of simplifying the procurement process, this should not be done by eliminating key competitive elements. Random closes work and should be used here.	<p>The AESO acknowledges that the random close works well in the RRO auctions but has noted this option is onerous for OR. See section 3.3.3 for the AESO’s consideration on the applicability to the OR market.</p> <p>The AESO notes that the proposed design with blind offers eliminates the incentive to hold offers until the last second as occurs in the current design. Also, the RRO auction is infrequent relative to the OR auctions which are repeated daily. Price discovery should occur based on the repeated nature of the auction at the daily level, as well as observing prices for similar products within the day.</p> <p>Moving all volumes to D-1 should also help with price discovery as it creates a single pricing point for each product unlike the current design with up to 5 pricing points for each product.</p>
Northstone Power Corp	Agree but stress that emphasis should be placed on price discovery and the AESO needs to monitor the process to ensure price discovery is working as intended	Acknowledged.
TransAlta	We support the use of blind offers with a fixed market close. This will reduce the administrative burden on participants and will	Acknowledged.

	provide for price discovery. We believe that having a fixed market close provides for sufficient price discovery.	
TransCanada	TCE agrees	Acknowledged.

#### 3.4.1 No must offer requirement

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	ENMAX supports not having a must-offer requirement, since it is in keeping with an “open” market in which participants choose whether they are in or out.	Acknowledged.
EPCOR	EPCOR agrees with the AESO recommendation to avoid implementing a must offer requirement	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA concurs that must-offer requirements are anti-competitive and should not be included.	Acknowledged.
Northstone Power Corp	Agree with AESO recommendation	Acknowledged.
TransAlta	We support this approach	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 3.4.2 Remove virtual units

Stakeholder	Stakeholder Comment	AESO Response
AltaGas Ltd.	AltaGas Ltd. does not support this recommendation.  The use of virtual units provides flexibility to our traders. The AESO has rules and procedures in place to deal with 'trades in error' and the removal of virtual units is not a reasonable solution to this issue.	OR participants will be permitted to continue using the current asset substitution software in order to give traders the necessary flexibility. By removing virtual units, the AESO is ensuring that when a seller submits an offer to the market, it will be associated with an asset that is capable of providing OR and can therefore count towards the final physical volume requirement.
ATCO	ATCO Power supports removing virtual units. Does the AESO also propose to eliminate the restatements on NGX after the session close?  ATCO Power would be in support of a more sophisticated unit tracking mechanism within NGX. For a company with multiple plants, time is needed between products to review volumes sold in a prior market and calculate remaining volume.	Acknowledged. The AESO is not proposing the elimination of restatements on NGX.  Acknowledged. Market participants will be encouraged to work with the AESO and NGX in the development of tools to better ensure participation
ENMAX	ENMAX agrees that virtual units are not required provided asset substitution is allowed.	Acknowledged.
EPCOR	EPCOR agrees with the AESO recommendation to preclude the use of virtual units	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	This will reduce the ability to transact early; however D-1 procurement will also hamper this ability. Thus, D-1 procurement would not allow for virtual units.	The removal of virtual units should not reduce the ability of a seller to do something that it otherwise would in the current design. See AESO response to Altagas Ltd above.
TransAlta	We do not have not concerns with the removal of virtual units	Acknowledged.

### 3.4.3 Standing offers facilitated by blind offers

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect	The ability to provide standing offers over multiple days would be useful to enable participation in the market. Is this the intent of	Agreed, the provision for standing offers should enable more or easier participation in the market. The AESO recommends

Consumers Association	this section?	standing offers with an expiry date so that the standing offer could be valid for a number of days or weeks
AltaGas Ltd.	As noted in 3.3.2, AltaGas Ltd. supports this recommendation and finds it strongly linked to the procurement schedule.	Acknowledged.
EPCOR	EPCOR supports the use of blind offers to facilitate standing offers in the interest of designing a market that has low participation costs but would advocate for a time threshold of standing offers (7 days) similar to what is observed in the energy market. This ensures that participants are still relatively active and are less likely to be subject to inattentiveness which could lead to non-compliance and, in-turn a lack of reserve adequacy and/or conscription.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA vehemently disagrees with this proposal. Competition requires transparency. Blind offers is not a solution that will foster competition – if blind offers are implemented, loads will end up paying more for OR than they should have to.	As discussed in the AESO's Recommendation Paper, standing offers are intended to facilitate participation. A number of participants, including load participants, have indicated that blind offers would better ensure their participation  The AESO suggests that a blind auction supports a FEOC market for OR more so than an open auction because: <ol style="list-style-type: none"> <li>1. A blind auction will facilitate more participation by allowing standing offers to be submitted.</li> <li>2. A blind auction is consistent with the energy market design.</li> <li>3. The daily and intra day nature of OR auctions facilitates price discovery while eliminating the incentive to hold offers until the last second.</li> </ol>
Northstone Power Corp	See comments for 3.3.3	Acknowledged.
TransAlta	We support this approach. We assume the current 5 minute lock down before close will be removed but would like clarity on this	Acknowledged and yes.
TransCanada	TCE agrees	Acknowledged.

#### 3.4.4 5MW minimum blocks

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	Is there any consideration for loads that could aggregate to provide this service? I.e., many have quick start back-up generation, but may not meet the 5 MW threshold, if they could aggregate (provided they meet the technical requirements) this could open the market up to more suppliers and therefore more competition.	<p>Because of Stakeholder comments received on this point, the AESO is open to considering assets less than 5 MW providing Supplemental reserves. The AESO is not prepared at this time to consider Spinning and Regulating providers being less than 10 MW and 15 MW, respectively. This is to ensure that sufficient generation capacity is under governor control to arrest frequency during system disturbances.</p> <p>The AESO has carefully considered assets less than 5 MW providing supplemental reserves and is agreeable to this so long as these providers have meaningful compliance tolerances associated with providing the service. This would mean tighter OR compliance tolerances for assets less than 5 MW compared to the compliance tolerances that are in place today.</p> <p>The AESO is also examining the possibility of allowing aggregators to sell OR, particularly Supplemental. In this case, the aggregated providers would be subject to the same standards as a single supplier.</p> <p>Through the OR ISO Rules Consultation process the AESO will further explore the details regarding assets less than 5 MW providing Supplemental OR, whether aggregated or as smaller individual assets. Items that will need to be determined over the coming months include how small can a Supplemental provider be and what are the compliance tolerances.</p> <p>The AESO needs to make Stakeholders aware that by allowing Supplemental providers to be less than 5 MW it does not have the IT capabilities in place today to allow (hypothetical) 200 1 MW providers and will therefore need to keep an eye on the number of providers less than 5 MW and any logistical constraints and further IT system developments that may be necessary if and when the number of providers sufficiently grows.</p>
AltaGas Ltd.	AltaGas Ltd. does not support this recommendation.	Acknowledged. The AESO will explore options for smaller block offers. See AESO response to ADC above.

	<p>AltaGas Ltd. finds this recommendation arbitrary, discriminatory and limiting to market access. AltaGas Ltd. does not agree that there is 'little or no OR value' in bids under 5 MW and finds no evidence for such a claim.</p> <p>While AltaGas Ltd. understands that smaller volumes may have been administratively complex to manage in the past, we expect that by having 100% of volumes cleared on an electronic trading platform the process can be easily automated.</p> <p>AltaGas Ltd. recommends that the 5 MW minimum block requirement be removed, and that any market participant who can satisfy the technical requirements for providing reserves be permitted to participate in the market.</p>	
ATCO	<p>Is ATCO Power correct in assuming that an offer of less than 5 MW can be made in the profile market, if a participant already has 5 MW in the product from the baseload market?</p> <p>What does the AESO propose will happen to the product price when rounding up or cancellations occur? This has the potential to have direct consequences on price.</p>	<p>The AESO will be working with NGX and market participants to ensure that design considerations like this one are contemplated and included in the redesign as they encourage participation.</p> <p>The AESO recommends for a marginal offer block that is only required for 3 or 4 MW be rounded up to 5 MW and the corresponding offer price be used. For trades that are cancelled and this would include a marginal block of 1 or 2 MW, the corresponding offer price would not be used or paid.</p>
EPCOR	<p>EPCOR does not agree with the AESO recommendation to limit offers to a minimum of 5 MW blocks, rather EPCOR agrees that no unit should be able to provide less than 5 MW. EPCOR recommends that offer blocks be allowed to be less than 5 MW as long as the summation of a unit's offer blocks equals 5 MW or greater. By this way, a participant would be able to offer several small blocks that in aggregate would still exceed the 5 MW limit per unit.</p> <p>EPCOR agrees with the rounding methodology whereby once a OR market closes, all assets that have three or four MWs will be rounded up to 5 MW while all assets for one or two MWs will be cancelled.</p>	<p>The AESO is recommending that a unit should not be permitted to sell less than 5 MW (subject to the considerations for supplemental reserve providers noted above) and therefore the first offer a participant makes should not be for less than 5 MW. A participant must submit a 5 MW block as their first offer and 1 MW increments after that if they wished.</p>

	EPCOR recommends that to assist in facilitating the above as well as in facilitating efficiency and low participation costs that all transactions for like product on a specific unit be amalgamated into one single transaction via the NGX system.	The AESO will be working with NGX and market participants to ensure that design considerations like this one are contemplated and included if feasible.
Northstone Power Corp	Strongly agree with the recommendation.	Acknowledged.
Powerex	Powerex encourages the AESO to reconsider the 5 MW minimum block and allow for 1 MW increments.	Acknowledged. See AESO response to ADC above.  A participant will be permitted to offer 1 MW increments. See response to EPCOR above.
TransAlta	TransAlta is concerned about a design feature that allows participants to submit initial offer volumes less than the minimum allowable 5 MWs. We believe that this is inconsistent with an efficient market design to allow market participants to place small offers which will be cancelled by the AESO due to a minimum size requirement. We therefore strongly encourage the AESO to propose a minimum offer block size of 5 MWs on a participant's first offer block. The clear benefits will be increased efficiency and transparency by allowing the last MW's transacted to always set the price. Any subsequent 1 MW offers would always be accepted as they would be added to the participant's base block of 5 MWs. This will eliminate phantom offers and help hold participants accountable for the offers they provide.	Acknowledged. The AESO is recommending a participant's first offer be no less than 5 MW, unless by exception for smaller assets providing supplemental reserves.
TransCanada	TCE agrees	Acknowledged.

#### 3.4.5 No limitations around price/quantity pairs

Stakeholder	Stakeholder Comment	AESO Response
EPCOR	EPCOR agrees with the AESO recommendation to not limit the number of price quantity pairs a seller can submit. EPCOR's recommendation of transaction amalgamation per unit per product will facilitate this in an efficient manner.	Acknowledged

Northstone Power Corp	Agree	Acknowledged.
TransAlta	No limitations except for volume on the first price/quantity pair – see 3.4.4	Yes. Acknowledged.
TransCanada	TCE agrees	Acknowledged.

#### 3.4.6 Allow for flexible and inflexible offers in most cases

Stakeholder	Stakeholder Comment	AESO Response
EPCOR	EPCOR agrees with the AESO recommendation for flexible offers with the exception of profile and shaped products.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA disagrees with this proposal, particularly if a single clearing price mechanism is used. If a lower priced unit is not selected due to an inflexible volume, and the rules require a higher priced flexible volume to be selected, then all supply would benefit from one supplier's inflexibility. This is inherently uncompetitive.	In the energy market participants are permitted to designate whether their offer block is flexible versus inflexible to reflect unit characteristics. The AESO recommends that this is also appropriate for the OR market.  The AESO will monitor the use of inflexible blocks for purposes of gaming.
Northstone Power Corp	Agree	Acknowledged.
TransAlta	We support this approach	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 3.4.7 Inter-ties participation unaffected

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	ENMAX assumes that the new WECC rules will not change this conclusion.	BAL-002 will not change this conclusion.
Industrial Power Consumers Association of Alberta (IPCAA)	Further clarification is required on this issue. It is vital for market participants to understand the implications of LSR, and whether this increases or allows for inter-tie participation.	80 MW of contingency OR are permitted to be sold over the inter-tie. This will not change with the OR redesign. The AESO is looking to competitively procure ancillary services (LSSi) to increase the inter-tie transfer capability. LSSi will not increase the inter-tie OR capability beyond 80 MW. The AESO does not permit an asset, including the inter-tie, to provide more than 80 MW of OR for reliability.

### 3.4.8 Dealing with conflicting ancillary service obligations

Stakeholder	Stakeholder Comment	AESO Response
ATCO	The AESO states “it is appropriate to leave the decision on OR participation with TMR providers to make the risks (and rewards) of doing so transparent”. ATCO Power supports this objective but strongly feels that not delivering an AS product due to a TMR obligation should be treated differently than non-delivery for commercial reasons. While it may be appropriate to include a charge in the former case sufficient to motivate risk/reward analysis, non-delivery should not be treated as a breach of an ISO rule. If there is a significant difference in views, ATCO Power would urge AESO to engage in further consultation to arrive at a satisfactory resolution to this important issue.	An entity that has entered into a commercial agreement to supply TMR from a particular facility can choose to offer OR from the same facility. In the event that the entity enters into a commercial agreement with the AESO to supply OR from the facility and this conflicts with an AESO dispatch to provide TMR service, the pre-existing TMR agreement will take precedence over the OR agreement. The entity may then substitute the OR obligation from another unit since OR requirements are not location specific, as TMR requirements are. If the entity cannot satisfy the OR obligation, a penalty will be assessed to the entity for non-compliance.
ENMAX	ENMAX agrees with the AESO that it is appropriate to leave the decision on whether to participate in the OR market in the hands of TMR providers. ENMAX also agrees that there should be no penalties in the event of conscription.	Acknowledged.
EPCOR	EPCOR agrees with the AESO recommendation that if a TMR provider intentionally engages in a practice by which they make	Acknowledged.

	more than one commitment for the same MW there should be consequences to that supplier for non-delivery. Subject to our comments in section 3.9, the contract terms relative to non-compliance and force majeure should be changed in the NGX and OTC contracts so as to prevent 'price-majeuring'	
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA agrees partially with this concept. This will also need to apply to future DR suppliers that may want to participate in both low probability DR and in OR.	Acknowledged.  AESO notes that the concept will apply to loads as well, as loads will not be allowed to provide two services simultaneously from the same MWs. If DR is sold, those MWs cannot be sold in the same period for AS because it is not possible to provide both services simultaneously.  Note that a seller can participate in multiple markets, as long as each MW is only committed to a single product at a given time. The seller must manage risks associated with being called to provide one service when also providing a competing service from the same MW, as is the case with TMR versus OR.
Northstone Power Corp	As hard as we try Northstone is unable to obtain new TMR contracts therefore N/A	Acknowledged.
TransAlta	We do not believe participants should be able to sell the same product twice. This is inconsistent with the basic fundamental concepts of a market design. One should not be able to break an existing obligation so that it can be provided for another obligation.	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

**3.5.1 All active OR providers dispatched. Standby providers dispatched as needed**

Stakeholder	Stakeholder Comment	AESO Response
Industrial Power Consumers Association of	This should consider a potential release of higher priced OR at T-2 if it is not needed. Generators will be able to offer into the energy market, and if they are selected to run, should not receive compensation for OR.	This is an example of why a T-2 OR market has benefits versus D-1; the AESO is able to better forecast its OR requirements.  However, as part of Phase 1, the AESO is focusing on

Alberta (IPCAA)		incremental changes to the existing design, and the design option outlined is not considered in scope at present given other priorities.
Northstone Power Corp	Agree	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 3.5.2 Technical Standards process unchanged

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	The AESO needs to review the technical requirements for spinning reserves and provide technical justification as to why they are currently prohibited from providing this service.	<p>Under existing Western Electricity Coordinating Council Criteria the AESO is not permitted to allow load customers to provide spinning or regulating reserves. Section 1.A.2 of WECC Minimum Operating Criteria states that non-spinning reserve obligation can be met by load which can be interrupted in 10 minutes of notification, permitting load to provide one type of OR, supplemental reserves.</p> <p>At this time WECC is in the process of obtaining approvals for the BAL-002 Standard. In this new standard it states that a regulating or spinning provider requires a governor or other control system. Should BAL-002 be approved by WECC, the AESO will explore the opportunity of load customers providing spinning reserves using "other control systems".</p>
Industrial Power Consumers Association of Alberta (IPCAA)	Need to consider loads for spinning reserves as per FERC guidelines (Order 890). This is already being implemented in other jurisdictions.	See AESO response to ADC above.
Northstone Power Corp	Agree	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 3.5.3 Testing

Stakeholder	Stakeholder Comment	AESO Response
EPCOR	<p>EPCOR is concerned about the lack of clarity in the recommendation paper regarding the duplication of testing obligations in the OTC contract and in the AESO rules. If the OTC agreement will not be used to transact OR volumes regularly testing obligations should be included exclusively in the NGX contract.</p> <p>EPCOR is of the view that market participants should have an opportunity to review any recommended updates to testing obligations prior to their inclusion in either the NGX agreement or in the AESO rules.</p>	<p>Acknowledged. In the paper the AESO is recommending that the language regarding testing that reside in the OTC Agreement needs to be updated, and the revised language is included in the ISO Rules. Whether this language would also appear in the OTC Agreement would be subject to consultation and be determined in the development of OR ISO Rules over the coming months.</p>
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA agrees	Acknowledged.
TransAlta	<p>We suggest that units which provide OR today and meet the stated technical standards should not have to test once approved. The initial approval to provide OR may require testing. Once approved the AESO should track performance. If there are issues with performance the AESO should require testing. If the AESO does require a regular testing schedule the AESO should pay for this testing as they do today.</p>	<p>The AESO agrees that a new provider must satisfy the necessary test requirements to ensure they are capable of providing OR.</p> <p>For further clarity the AESO may also require to perform tests on OR providers if:</p> <ul style="list-style-type: none"> <li>• communication, IT or any other systems associated with providing OR are updated or changed at either the AESO or providers' facilities;</li> <li>• an approved OR provider has not provided OR for a period of 12 months and decides to re-enter the market. Prior to allowing the provider to re-enter the market the AESO will request a re-test of the facility;</li> <li>• through providing OR the AESO has reason to believe the OR provider is not meeting the technical requirements;</li> </ul> <p>In the existing design the AESO does not pay for the testing of a</p>

		<p>new provider. As stated in section 3.5.3, the OTC Agreement contemplates the testing and payment of direct incremental costs associated with non-PPA facilities only.</p> <p>Should the AESO require testing of a new or existing provider for any of the reasons above, the AESO recommends the supplier incur all costs associated with such test. The AESO would work with the provider to perform test(s) at times that are convenient.</p>
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### 3.6.1 Facilitate Self Supply by financial arrangements

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	The DTS tariff needs to include a real-time AS cost component that adequately represents the price for reserves. Today even though a load may have responded to a high priced hour, they can't avoid the cost as it show up in the deferral account rider.	Acknowledged. The AESO's Regulatory group has commenced consultation with Stakeholders on this point under the 2010 Tariff Consultation Process.
AltaGas Ltd.	<p>AltaGas Ltd. supports this recommendation in principle, but worries about the cost/benefit balance of this change.</p> <p>If the AESO is satisfied that the benefits will outweigh the costs, AltaGas Ltd. is satisfied with this recommendation.</p>	Acknowledged. The AESO proposes to consult further on self supply and as part of Phase II. Multiple physical buyers of OR, acting in the same manner as the AESO was excluded from the Phase I redesign due to scope and timing.
ENMAX	ENMAX supports the concept of self-supply, though the costs and benefits have yet to be established.	Acknowledged. See response above to AltaGas.
EPCOR	<p>EPCOR agrees that further detail and granularity would be useful with respect to charges in the DTS rate to more appropriately reflect the costs incurred by market participants.</p> <p>EPCOR, however, is interested in the prospects of loads being able to opt-out of the OR market and physically self supply as is done in other deregulated power markets. This would enable loads to purchase their 'share' of some or all of their reserve products directly from a physical provider rather than via the AESO OR market while leaving dispatch control with the AESO. To this end, EPCOR is concerned that little attention has been paid to the multiple buyer and seller design, by allowing self procurement of OR, as recommended by the Department of</p>	Acknowledged. See responses above to ADC and AltaGas.

	Energy Market Policy Framework (Policy) published in June 2005.	
Industrial Power Consumers Association of Alberta (IPCAA)	The key factor for self-supply as a financial hedge will be the degree of convergence of the financial products to the single clearing price model proposed through the tariff adjustments suggested – IPCAA welcomes the opportunity to participate in these discussions	Acknowledged. See responses above to ADC and AltaGas.
Northstone Power Corp	Agree	Acknowledged.
TransAlta	We support this initiative.	Acknowledged.

### 3.6.2 AESO facilitate third party asset substitution

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	The ADC agrees with asset substitution.	Acknowledged. Third party asset substitution is a concept the AESO supports. Currently there are issues concerning confidentiality of sellers' information associated with the business solution the AESO may be able to implement in the near term.. If the AESO enables its IT systems to allow third party asset substitution, any operating reserve provider will be able to view all other providers' OR commitments. The AESO is committed to finding a solution for third party asset substitution if feasible.
AltaGas Ltd.	AltaGas Ltd. supports this recommendation in principle, but worries about the cost/benefit balance of this change.  If the AESO is satisfied that the benefits will outweigh the costs, AltaGas Ltd. is satisfied with this recommendation.	Acknowledged. See response to ADC above.
ATCO	ATCO Power supports third party asset substitution.	Acknowledged.
ENMAX	ENMAX supports having the ability to substitute assets, either one's own or those of another provider. We note that the AESO's suggestion that asset substitution be allowed seems to be at odds with the procurement logic of picking suppliers based on the duration of their offers. The objective of the proposed	The AESO does have some concerns associated with "asset churn" or consistently dispatching different OR providers.

	procurement logic seems to be the minimization of “asset churn,” whereas the outcome of a party deciding that it would “like to attempt to buy out of the entire position or for a portion of the hours with another party” might be an increase in churn.	
EPCOR	EPCOR is concerned about the difficulty of implementing an IT system with this functionality and is uncertain that there is enough interest and subsequent benefit to make it cost effective. EPCOR seeks clarification as to whether the implementation of the Phase I initiative could potentially be delayed due to the implementation of such a financial market.	Acknowledged. See AESO response to ENMAX and ADC above. Regarding the implementation of a financial market, the AESO is not aware of any limitations associated with parties entering in to purely financial arrangements (third party asset substitution involves physical delivery and is not solely financial).
Industrial Power Consumers Association of Alberta (IPCAA)	It would appear that making the D-1 transactions firm would encourage these types of transactions and should be considered by the AESO rather than allowing sellers the option to not supply if they are on a forced outage	The AESO understands firm as used in this instance to mean that sellers should be at risk for their offer either physically or financially if they cannot deliver.  Making transactions firm is inconsistent with the energy market design and would serve to make AS sales more risky than energy sales. The Alberta design is not an imbalance market but requires providers to make assets available. The AESO suggests making transactions firm in the AS market would reduce competition and any benefits of encouraging third party substitution would be more than offset by increased risk premiums and reduced competition. See AESO response to ADC.
Northstone Power Corp	Agree	Acknowledged.
TransAlta	We would like to see the AESO commit to implementing this versus merely reviewing it. It is an important design component that will foster a viable forward market and reduce risks of participation for sellers to an acceptable level.	Acknowledged. See AESO response to ADC above.
TransCanada	TCE agrees	Acknowledged.

### 3.7.1 Exhaust market solutions prior to conscripting OR providers

Stakeholder	Stakeholder Comment	AESO Response
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ENMAX	ENMAX agrees completely with having the AESO exhaust market solutions prior to resorting to conscription, as doing so upholds the purposes of the Electric Utilities Act and is in keeping with a FEOC market.	Acknowledged.
EPCOR	EPCOR agrees that the AESO should exhaust all market solutions prior to conscripting OR providers and EPCOR seeks clarification regarding the specific procedures the AESO will follow when determining that all market solutions have been exhausted prior to the implementation of Phase I.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA agrees with use of in-market solutions in preference to conscription; however, OR suppliers should not be able to benefit from such actions. The failure to participate in the OR market may be encouraged if suppliers receive greater compensation from being conscripted than from the market	Acknowledged. The AESO agrees that conscripted providers should not benefit from such actions and not be encouraged to be conscripted through greater compensation. This would be considered a perverse incentive. Article 11.3 outlines compensation a conscripted OR provider would receive, which is either the highest price paid in the hour that was the result of a competitive process; or the verifiable net opportunity cost related to foregone electricity sales.
Northstone Power Corp	Agree	Acknowledged.
TransAlta	We strongly support this initiative.	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 3.7.2 Process required for conscripting OR providers

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	ENMAX will work with the AESO during the rules consultation process to ensure fairness in the conscription rules.	Acknowledged.
EPCOR	EPCOR agrees that, in the event conscription is necessary, the process used to select resources should not be biased. EPCOR seeks further clarification regarding the specific procedures and processes that will be put in place in the event that conscription is deemed necessary. EPCOR recommends that the AESO consult on this process prior to Phase I implementation.	Acknowledged. The AESO proposes transparency and simplicity to the extent it is necessary to conscript an OR provider.
Industrial	A published queue for conscripting suppliers with the top of queue	See response to EPCOR above.

Power Consumers Association of Alberta (IPCAA)	the next to be conscripted may encourage greater market participation if the supplier is better off with an in-market solution	
Northstone Power Corp	Agree	Acknowledged.
TransAlta	As previously stated, the process should be based on fairness and not allow for the same OR participant(s) to be conscripted each time. There should be a rotating list that the AESO uses for conscripting providers to ensure the same provider is not always called upon. All OR participants, with respect to a generators capabilities and past bidding behavior, should be subject to having to provide their services. For example, if an OR participant has historically (i.e. in the last year or the last 3 months) participated solely in the supplemental market, they should not be on the conscription list to provide Reg or Spin. However, if they are physically capable, and have participated (bid/offered) recently (within xx months) then there would be an obligation to serve. Refusal for conscription cannot be an economic decision. The entire conscription process should be public and visible including how often the AESO is relying on conscription, which participants are on the list, and when they have or have not provided reserves through the conscription process.	The AESO rarely relies on conscription due to adequate liquidity in the market, and expects this to continue. See response to EPCOR above. To implement more complicated protocols would take substantially more time and the benefits would be minimal due to infrequency of use.
TransCanada	TCE agrees and notes the need for reporting as part of the process.	Acknowledged.

### 3.7.3 Consult on market suspension process and rule

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	ENMAX agrees that the necessary rules and conditions for the suspension of the AS market should be coordinated with those of the energy market, and will work with the AESO during the	Acknowledged.

	consultation process.	
EPCOR	EPCOR firmly believes that the AESO should consult on Rule 6.9 and make any necessary changes prior to the implementation of Phase I.	The AESO has commenced consultation on Rule 6.9.  Rule 6.9 has never been used and it is expected to rarely, if ever be used in the future.  The AESO recommendations associated with Phase 1 OR Redesign do not need to be delayed pending the review of Rule 6.9.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA welcomes opportunity to participate	Acknowledged.
Northstone Power Corp	Agree	Acknowledged.
TransAlta	We agree consultation is necessary.	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 3.8.1 Remove perverse incentives, provide clarity around acceptable/unacceptable behaviour and potential consequences

Stakeholder	Stakeholder Comment	AESO Response
AltaGas Ltd.	As noted by the AESO, further consultation on these points is required.	Acknowledged.
ENMAX	ENMAX agrees that AS market contract provisions must not create perverse incentives and must be clear on the types of behaviours that they are intended to mitigate. However, ENMAX is not convinced that the existing liquidated damage provisions are inadequate, and is consequently in favour of retaining them.	The AESO agrees that rules pertaining to OR should be clearer on what is appropriate versus inappropriate behaviour. Through the development of OR ISO Rules these will be determined.
EPCOR	EPCOR agrees strongly that perverse incentives must be eliminated and greater clarity needs to be provided around acceptable/unacceptable behavior and potential consequences.	Acknowledged.
Industrial Power	IPCAA agrees. The penalty for non-compliance must always exceed the benefits of performing as contracted.	Acknowledged.

Consumers Association of Alberta (IPCAA)		
Northstone Power Corp	Agree	Acknowledged.
Powerex	Powerex is VERY supportive of the AESO developing clear and transparent guidelines for acceptable and unacceptable behaviour. Similar to T-2, the AESO and market participants must develop and understand acceptable operating reasons for non-compliance with a OR dispatch. There must be mechanisms to distinguish unintended or excusable non-compliance from instances of inappropriate actions.	Acknowledged.
TransAlta	<p>TransAlta is concerned that if penalties are set too high, this could become a barrier to entry into the market. We agree with the AESO that clarity is a reasonable goal.</p> <p>If the AESO intends to create many new rules for the OR market, significant consultation will be required on this including issues of compliance measurement specifications and compliance rules. We would suggest that the implementation of the OR market redesign requires completion of OR compliance rules before implementation. Otherwise it leads to a lack of clarity for participants as to how they will be dealt with. This is not something we would be comfortable having completed after implementation of the Operating Reserve Redesign. It is an important component that needs be done at the same time.</p> <p>Further the AESO should realize that their dispatching of energy, regulating reserves, operating reserves and directives for operating reserves can be overwhelming for a unit operator to manage. The AESO has a computer calculating all the dispatches and unit operators receive many simultaneous dispatches that the operators must comply with. A few minutes later (often the top of the hour) all the dispatches may be rearranged and we must comply with those. It may be next to impossible to comply under these conditions and perform other necessary tasks. Most units or</p>	<p>Acknowledged. The AESO will be commencing the consultation process on OR ISO Rules. However, measurement and compliance rules are largely independent from the market redesign as the implications for participants will be determined in the real-time operational market.</p> <p>The AESO is in the process of implementing a new dispatch tool that will address many of these concerns prior to the redesign being in place.</p>

	<p>pairs of units have one individual performing all these tasks. The additional cost of having an additional operator available 24 hours a day could easily be 1 million dollars. We would like the AESO to consider this cost in designing compliance tools and metrics. We believe the increased cost to participants for this and other rules such as the dispatch variance rules and the increased cost of compliance must be considered in the development of the parameters for compliance. That is, the AESO should consider that the stricter the rules and compliance bands, the more likely it is this would require generators to have additional operators which comes at a significant cost. Has the AESO considered this cost and an increased complexity to operators of generating units in making this recommendation?</p>	
TransCanada	TCE agrees	Acknowledged.

3.8.2 Continue to use force majeure definition in NGX Agreement

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	A single definition of force majeure is appropriate, and ENMAX supports using the NGX definition.	Acknowledged.
EPCOR	EPCOR agrees that the definition of Force Majeure in the NGX and OTC contract should be consistent. EPCOR prefers the definition that is currently in the OTC agreement as it provides special consideration for PPA units. EPCOR has stated numerous times our belief that it is necessary that rules be directed at the party who has the ability to control physical compliance. The OTC contract recognizes that there are circumstances in which action or inaction taken by the PPA Owner are out of the control of the PPA Buyer and for that reason the PPA Buyer is able to declare Force Majeure.	<p>When applying to become an OR provider or pool participant a party agrees to be bound by commercial terms and conditions and/or ISO Rules. There is no such agreement with PPA owners or counterparties to other arrangements that OR providers or pool participants may have. Therefore, it is appropriate that the OR provider or pool participant be held accountable for the assets in respect of which they have rights.</p> <p>As mentioned in the Recommendation Paper, the AESO is not aware of any issues the different definitions have created.</p>
Industrial Power Consumers Association of Alberta	IPCAA agrees	Acknowledged.

(IPCAA)		
Northstone Power Corp	Agree	Acknowledged.
TransCanada	TCE disagrees with the NGX definition being adopted, as it does not address certain PPA issues.	See AESO response to EPCOR above.

### 3.8.3 Improve transparency of OR providers

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	Agree with improved transparency.	Acknowledged.
ATCO	ATCO Power would encourage the AESO to break apart the tie line and load providers into separate categories.	Acknowledged. The AESO is recommending that the inter-tie, generators and load each be broken apart into separate categories.
EPCOR	<p>EPCOR is concerned with the AESO proposal to improve transparency of OR providers. EPCOR is concerned that due to the relatively small size of the OR market that by providing real time visibility of OR providers the AESO will inadvertently be disclosing market participant's proprietary information and offer strategies to other market participants.</p> <p>EPCOR recommends that if it is deemed necessary to publish this information, it should be published 60 days after the settlement date.</p>	Acknowledged. See response to TransAlta below.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA agrees – transparency of market information enhances pricing efficiency	Acknowledged.
Northstone Power Corp	Strongly agree	Acknowledged.
TransAlta	TransAlta would like the AESO to consider publishing offer data	The Department of Energy has issued a FEOC Regulation which

<p>with the identity of the bidder camouflaged, and with at least a seasonal lag (i.e. 3 months) rather than in real time or in 60 days, in order to prevent giving certain market participants an unfair competitive advantage. After a 3-month period, market conditions should have changed sufficiently so that the information is dated and no longer useful for exploitation.</p> <p>1) Publishing of bid data has been approached very conservatively in the US. FERC has generally been comfortable with a 4 month lag on transaction and contract data (EQR data release schedule), and a 6 month lag for actual bid data (always with identities masked). The exception to the delay period is ISO-NE, who has recently been approved to release bid data (but with identities masked) with a 3 month lag. Much of the cautious attitude to hiding identities and releasing the bid data with a lag is hinged on preventing tipping the balance in favour of certain market participants and undermining price-taking behavior. FERC has also prohibited collusive behavior – explicit and tacit. Immediate release of bid data will provide very timely and detailed information about all market participants’ bidding strategies and may also reveal their short-term market positions. The AESO must consider the benefits and costs of releasing data. Early release of data cannot always be assumed to be a good thing.</p> <p>2) The US Department of Justice has warned FERC about the use of disaggregated competitively sensitive data, noting that “extensive disclosure of customer-specific information will allow utilities to observe the terms on which their competitors do business, increasing the likelihood of collusion and higher prices for electricity consumers.”</p> <p>3) In contrast, the Public Utility Commission of Texas (PUCT) has distinguished themselves as a non-FERC jurisdiction and required the release of un-masked bid/offer data for their residual BES market within 1 month, on the premise that this will help the market monitor as the market will “police” itself. Although the PUCT considered the Australian (NEMMCO) model – release of bid data the next business day - PUCT was also concerned about</p>	<p>outlines requirements regarding the disclosure of power pool and operating reserve offers. In the Regulation, 60 days is the period of time delay for offer information to be disclosed. OR offers are disclosed in terms of physical providers and MW dispatched on an hourly basis, differentiated by OR type.</p>
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	<p>the possible harm that could result to individual participants, as well as for the market as a whole.</p> <p>The current design reflects an appropriate level of transparency. It currently identifies how much reserves are being provided by particular units but does not identify which type. Providing information about the type of reserves being provided by which unit 3 months after real time would be unnecessary and could be detrimental to the market. Has the AESO considered the costs and benefits of providing this additional transparency to the market in real time, particularly when there appears to be little benefit to this?</p> <p>The AESO needs to be careful to balance transparency and stakeholders need for confidentiality and the impact on the market of disclosing confidential information. The operating reserves market is a small market and this needs to be taken into consideration when publishing data related to provision of reserves. We encourage the AESO to consider provision of this information on a 3 month lag basis instead of in real time. We would ask the AESO to provide justification for why this is needed given the careful balance they must strike.</p>	
TransCanada	TCE agrees	Acknowledged.

3.9.1 Documentation of OR Rules

Stakeholder	Stakeholder Comment	AESO Response
ATCO	<p>Paragraph 20(1) of the Electric Utilities Act states “The Independent System Operator may make rules respecting (d) the provision of ancillary services”</p> <p>ATCO Power believes the current compliance regime is efficient and well designed and appears to be functioning properly and is consistent with the Act.</p> <p>ATCO Power would encourage the AESO to split Phase I of the operating reserves market redesign into two phases. Phase Ia could encompass the elements of design that can be more quickly implemented into the market. Phase 1b could contain the elements around rule design which would take longer to implement.</p>	<p>The AESO intends to initiate consultation on the development of OR ISO Rules. The move to a D-1 auction and improved transparency will be made to the market prior to completed ISO Rules as outlined in the revised Recommendation Paper.</p>
ENMAX	<p>While clarity and consistency of rules is important, it is not clear that the enforcement regime for NGX-traded contracts can or should be made the same as that for the energy market. Further, ENMAX is not aware of anything in the NGX contract that is fatally flawed. ENMAX needs a greater understanding of the pros and cons of this proposal.</p>	<p>The AESO is recommending OR volumes be procured using the NGX trading platform. NGX will be responsible for clearing OR transactions. When it comes to dispatching and reviewing operational compliance of an OR provider, NGX is not and will not be involved in this process. This is and will remain an AESO responsibility. OR compliance is an example of why the AESO believes ISO Rules pertaining to OR is appropriate.</p> <p>The AESO also believes it is appropriate to have rules pertaining to energy and OR residing in a common place, the ISO Rules. New participants will be able to refer to ISO Rules in order to understand the requirements for providing each service.</p> <p>The NGX agreement was drafted in 2000 when a very different OR market was envisioned. Many of the terms and conditions and references within that agreement are no longer relevant. The AESO understands NGX are currently performing a review of the agreement to remove language that is not applicable and make the agreement more appropriate to the procurement process that</p>

		is in place.
EPCOR	<p>EPCOR is concerned about the lack of clarity in the recommendation paper regarding the duplication of OR rules in the OTC or NGX contracts and in the AESO rules. EPCOR believes that OR participants should be held accountable to either one or the other but not both as this has the potential to make participation in the OR market too burdensome.</p> <p>EPCOR continues to prefer the use of a bilateral contracting mechanism for the delivery of OR products. EPCOR believes that the outcome of non-compliance should be a strong driver for the AESO decision on whether to exercise its authority through rules, contracts, tariffs or some other legal mechanism. EPCOR is concerned that the AESO may have greater difficulty in procuring OR products through a rule-mechanism than through a bilateral contract. If a contract is used, the AESO retains discretion over its treatment of non-compliance; the current contract mechanism provides for liquidated damages for non-delivery. This is a preferable outcome to the current mechanism under the AUC Act, where instances of suspected non-compliance with a rule are required to be dealt with through a transfer of enforcement responsibility to the MSA, and thence to the AUC. EPCOR is also concerned about the use of an AESO rule to procure reserves as there is the potential of conflicts between two agencies with jurisdiction (MSA/AUC and the Alberta Securities Commission, which regulates NGX); as well as double jeopardy if the current liquidated provisions are retained along with the potential or prosecution by both the MSA and Securities Commission.</p> <p>In addition, EPCOR is of the view that the AESO is attempting to address two very different, although related, objectives in Phase I. The first objective deals with changes to the design of the OR market, while the second objective deals with compliance and subsequent enforcement with the new design. EPCOR recommends that the AESO consider splitting the implementation of Phase I into two parts, Part A and Part B, in order to deal with the two objectives separately. Changes to the OR market design could be implemented quickly and efficiently via changes to the</p>	<p>See AESO response to ATCO and ENMAX above.</p> <p>The AESO acknowledges if OR ISO Rules are too burdensome for participants this will be to the detriment of the OR market, particularly in the light of the AESO not recommending a must offer requirement.</p>

	<p>NGX contract. Implementing these changes independent of consultation on the need for OR rules to be captured in AESO rules allows for market participants to realize the potential benefits of the OR redesign immediately while allowing more time for the necessary consultation on the need to capture OR rules in AESO rules.</p> <p>Consultation on the inclusion of OR market rules in AESO rules will be a much lengthier process and if not dealt with separately in Part B will likely delay the implementation of Phase I in its entirety.</p> <p>Furthermore, by implementing Part A prior to Part B more data will be available to assist in the evaluation of the potential changes to OR rules before they have been codified in AESO rules if the AESO determines that this is necessary. In the event that a flaw in the market design is realized it would be much easier to adapt the NGX contract than to make changes to AESO rules once they have been approved by the AUC.</p>	
<p>Industrial Power Consumers Association of Alberta (IPCAA)</p>	<p>IPCAA does not wholly support this recommendation – the AESO is a market participant and as such may be perceived to be in a conflict situation if it is also the Rule maker.</p> <p>If trading remains on the NGX system then rules with respect to price discovery and pricing integrity should remain with NGX. Rules with respect to the technical requirements for supply of the OR products should be AESO Rules</p>	<p>The AESO agrees that NGX have responsibilities associated with price discovery and price integrity and these will reside in the NGX Agreement.</p> <p>The AESO is responsible for the reliable operation of the electric system as well as facilitating fair, efficient and openly competitive markets. Therefore, there is overlap in terms of AESO and NGX responsibilities.</p> <p>Through the drafting of OR ISO Rules it will better determine what is appropriate to be included in each of the ISO Rules and NGX and OTC Agreement.</p>
<p>Northstone Power Corp</p>	<p>Agree</p>	<p>Acknowledged. See AESO response to ATCO above.</p>
<p>TransAlta</p>	<p>We are concerned about the impact of specified penalties on participation in the market. We would encourage the AESO to continue using the NGX contracts and put only what is necessary</p>	<p>See AESO response to ATCO and IPCAA above.</p>

	into the rules. TransAlta does not believe AUC Rule 019 is required for compliance in the OR Market.	
TransCanada	TCE supports a contractual approach as being more flexible for implementation and revisions.	See AESO response to ATCO and IPCAA above.

### 3.9.2 Amendments to the NGX and Over the Counter (OTC) Agreement

Stakeholder	Stakeholder Comment	AESO Response
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA agrees with the alignment of the OTC agreement with NGX. It should be clarified why and where the OTC will be required in the future	Acknowledged. As mentioned in section 3.9.3 the OTC agreement will be used to the extent the OR market does not function as intended. The AESO does not propose to use the OTC agreement as an alternative to utilizing NGX. On any given day, to the extent the AESO is unable to secure the necessary volumes on NGX the AESO will assume that offers from willing and capable OR providers would have been submitted to the market. To the extent the AESO still requires OR volumes it will conscript service from capable providers.
TransCanada	TCE agrees	Acknowledged.

### 3.9.3 OTC Agreement

Stakeholder	Stakeholder Comment	AESO Response
EPCOR	EPCOR sees the merit in maintaining the current OTC agreement and sees the potential need in case the AESO determines the need to conscript. However, EPCOR seeks clarification from the AESO regarding the use of the OTC contract. EPCOR believes that the terms of usage should be clearly defined and in place prior to Phase I implementation.	Should an OR provider be conscripted to provide OR, this would be under the terms and conditions of the AESO's Tariff, and not the OTC agreement. As mentioned in section 3.9.3 the OTC agreement will be used to the extent the OR market does not function as intended.. The AESO does not propose using the OTC agreement as an alternative to NGX. On any given day, to the extent the AESO is unable to secure the necessary volumes on NGX, it will not use the OTC agreement to solicit OTC offers. The AESO will assume that offers from willing and capable OR providers have been submitted to the market. To the extent the AESO still requires OR

		volumes it will conscript service from capable providers.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA does not see the need for any OTC arrangements under this proposal. Supply will either trade on NGX or be conscripted.	Acknowledged.
Northstone Power Corp	Agree	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

#### 4.0 Policy Coherence

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	While the changes to the OR market proposed by the AESO appear to ENMAX to be consistent with a FEOC market and in the public interest, it will be difficult to make a definitive assessment until some of the details are worked out.	Acknowledged.
Industrial Power Consumers Association of Alberta (IPCAA)	<p>The re-design proposed for a single D-1 auction procurement with a single clearing price and no random close period may not be FEOC consistent if suppliers regularly withhold supply to influence prices or otherwise game the system with “offer jamming” at the close.</p> <p>Suggesting that this market redesign proposal is compatible with the 2005 policy paper ignores several of the issues raised with respect to self-supply and multiple buyers.</p>	<p>The Department of Energy Policy paper made the following recommendation regarding the OR market:</p> <p><i>“Based on mixed stakeholder comments and in keeping with the approach taken with respect to the energy market (i.e. incremental refinements to current market design), the Department recommends taking a similar approach to changes in the operating reserve market design. While the Department supports in principle the concept of a design with multiple buyers and sellers, by allowing the self-procurement of operating reserve by loads, the Department recommends that the ISO continue to work with stakeholders to determine the desirability of this option.”</i></p> <p>The AESO is of the opinion that the process followed to date and AESO recommendations are consistent with the policy paper recommendations.</p>

### 5.1 Implementation of Administrative Improvements to NGX

Stakeholder	Stakeholder Comment	AESO Response
EPCOR	EPCOR is concerned about the costs required to implement certain proposed changes to the NGX platform and whether or not they would be cost effective – recognizing that they are necessary for the removal of AESO influence. EPCOR is further concerned with respect to any additional fees that NGX may levy in order to facilitate the AESO's proposed OR design.	Acknowledged. Anytime IT systems such as the NGX platform need to be redesigned this comes at a cost. Under Phase I the AESO does not have reasonable economic alternatives to NGX.
Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA agrees with the need for administrative simplicity	Acknowledged.
TransCanada	TCE agrees	Acknowledged.

### 6.1 Post implementation review

Stakeholder	Stakeholder Comment	AESO Response
Alberta Direct Connect Consumers Association	Definitely agree that price trends of OR need to be closely monitored with the AESO prepared to take action if costs increase significantly. Load can't afford continued price increases that they have no means of mitigating.	Acknowledged. Cost increases on their own are not necessarily cause for concern. A number of considerations would be included in the post implementation review.
ENMAX	ENMAX supports having a post-implementation review. Such a review will be most effective if some success metrics are established in advance of making the OR market changes. The review would then examine the extent to which the market changes achieved their objectives.	Acknowledged. The AESO encourages input on establishing predefined metrics and is open to setting up a stakeholder meeting or working group to solicit input.
EPCOR	EPCOR believes that the AESO should define and consult on performance metrics prior to Phase I implementation. EPCOR requests that the AESO commit to carrying out a timely review of the overall success of Phase I using these predefined metrics.	Acknowledged. See AESO response to ENMAX above.

Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA welcomes the opportunity to participate in the Phase I process and would encourage the AESO to model the potential impacts of these changes on overall OR costs to ensure that the market design, albeit simpler, is not more costly to DTS payers	<p>The AESO acknowledges there are benefits of modeling potential effects to markets. However, in this instance, the AESO does not believe that it is possible to accurately model the price impact of changes such as using a clearing price model, increasing transparency, procuring all volumes at D – 1 and indexing activation prices to the pool price. As a result, the AESO will review the performance of the market after implementation.</p> <p>The AESO does have experience with some of the changes and is confident they will benefit the market. For example, since the summer of 2008 the AESO changed its procurement methodology and procures the majority of its OR requirements at D-1. The AESO believes the market has been functioning better with a material increase in the number of competing offers.</p>
TransAlta	There are still many details that are required to bring the concepts outlined in the AESO paper to fruition. We would suggest some consultation occur before publishing of draft rule.	Acknowledged. The AESO will work with stakeholders to develop OR ISO Rules.
TransCanada	TCE agrees	Acknowledged.

## 6.2 Phase II

Stakeholder	Stakeholder Comment	AESO Response
ENMAX	Given that AS prices are tightly coupled to pool prices, it is not necessarily the case that a T-2 hourly OR market would provide greater opportunity for convergence between the two markets. Having said that, ENMAX is open to the idea of investigating an hourly market during a possible Phase II of the project. Before engaging in that exercise, however, the post-implementation review should be conducted to determine whether there are issues with the AS market that still need to be addressed.	Acknowledged.
EPCOR	EPCOR firmly believes that prior to implementation of any Phase II initiatives that Phase I is in place for a sufficient length of time to determine that it is in fact working as intended and that the AESO commits to carrying out a timely review of Phase I prior to initiating consultation on Phase II.	Acknowledged.

Industrial Power Consumers Association of Alberta (IPCAA)	IPCAA remains very skeptical of the re-design for a T-2 alignment with the energy market. It is time that electricity and OR providers took price responsibility for their offers instead of having cost-less options at the expense of ratepayers. The AESO has already introduced several so-called price efficiency measures (Quick Hits), which have yet to have any discernible positive impacts on consumer costs of electricity.	Acknowledged.
Northstone Power Corp	Northstone has not considered Phase II until the post implementation review of Phase 1 is complete	Acknowledged.
TransAlta	We agree that Phase II suggestions be considered at a future date as required	Acknowledged.

Other

Stakeholder	Stakeholder Comment	AESO Response
ATCO	ATCO Power is concerned about the competitive viability of the operating reserves market if WECC Standard BAL-002-WECC-1 is adopted by the AESO as written. If the new standard is adopted as written, there is a need to evaluate the impact on the competitiveness of the operating reserves market given the large volume reduction.	This concern is not related to the OR redesign. The AESO is unclear why BAL-002-WECC-1 should cause concern regarding the contestability of the OR market. With respect to the OR redesign, there will be a post implementation review of the OR market. See section 6.1.