

Appendix B

AESO Recommendation Paper - Operating Reserve Market Redesign Stakeholder Comment Matrix ENMAX Energy Corporation (“EEC”)

Section	Subsection	Stakeholder Response
3.1 Market Framework	3.1.1 Create a single trading platform to concentrate liquidity and establish more meaningful OR price indices	ENMAX supports the use of a single trading platform.
	3.1.2 Minimize AESO influence - submit bid volume requirements in auction format	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.
	3.1.3 Minimize AESO influence - D-1 auctions	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 volumes only, and providers’ risks can be managed through asset substitution.

3.2 Market Products and Pricing	3.2.1 Add to the suite of D-1 OR products	ENMAX supports the introduction of products that will help the AESO procure all of its AS requirements without resorting to conscription.
	3.2.2 Continue to use On/Off peak products instead of hourly products	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.
	3.2.3 OR indexed to pool price, marginal pricing for homogenous products and pay as offered for non-homogenous products	<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>
	3.2.4 OR market price cap equal to energy market price cap	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.
3.3	3.3.1 Apply selling logic for profile and	ENMAX supports the use of transparent and logical criteria for selecting

Procurement Process and Timing	non-standard offers	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 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.
	3.3.2 A reasonable procurement schedule	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.
	3.3.3 Fix market closes and create price discovery	ENMAX agrees that random closings are not required. Having several related markets close every day will provide adequate price discovery.
3.4 Market Participation and Obligations	3.4.1 No must offer requirement	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.
	3.4.2 Remove virtual units	ENMAX agrees that virtual units are not required provided asset substitution is allowed.
	3.4.3 Standing offers facilitated by blind offers	
	3.4.4 5MW minimum blocks	
	3.4.5 No limitations around price/quantity pairs	
	3.4.6 Allow for flexible and inflexible offers	

	in most cases	
	3.4.7 Inter-ties participation unaffected	ENMAX assumes that the new WECC rules will not change this conclusion.
	3.4.8 Dealing with conflicting ancillary service obligations	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.
3.5 Dispatching and Technical Terms	3.5.1 All active OR providers dispatched. Standby providers dispatched as needed	
	3.5.2 Technical Standards process unchanged	
	3.5.3 Testing	
3.6 Multiple Buyers	3.6.1 Facilitate Self Supply by financial arrangements	ENMAX supports the concept of self-supply, though the costs and benefits have yet to be established.
	3.6.2 AESO facilitate third party asset substitution	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 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.
3.7 Out of Market Actions	3.7.1 Exhaust market solutions prior to conscripting OR providers	ENMAX agrees completely with having the AESO exhaust market solutions prior to resorting to conscription, as doing so upholds the

		purposes of the <i>Electric Utilities Act</i> and is in keeping with a FEOC market.
	3.7.2 Process required for conscripting OR providers	ENMAX will work with the AESO during the rules consultation process to ensure fairness in the conscription rules.
	3.7.3 Consult on market suspension process and rule	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 consultation process.
3.8 Compliance and Market Integrity	3.8.1 Remove perverse incentives, provide clarity around acceptable/unacceptable behaviour and potential consequences	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.
	3.8.2 Continue to use force majeure definition in NGX Agreement	A single definition of <i>force majeure</i> is appropriate, and ENMAX supports using the NGX definition.
	3.8.3 Improve transparency of OR providers	
3.9 OR Market in ISO Rules and Contractual Items	3.9.1 Documentation of OR Rules	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.
	3.9.2 Amendments to the NGX and Over the Counter (OTC) Agreement	
	3.9.3 OTC Agreement	

4.0 Policy Coherence		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.
5.0 Consultation and Implementation Process	5.1 Implementation of Administrative Improvements to NGX	
6.0 Post Implementation Process	6.1 Post implementation review	ENMAX supports having a post-implementation review. Such a review will be most effective if some success metrics are established <i>in advance</i> of making the OR market changes. The review would then examine the extent to which the market changes achieved their objectives.
	6.2 Phase II	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.