Period of Comment:October 8, 2019 through October 29, 2019Comments From:VIDYA Knowledge Systems Corp.Date:2019/10/29		Contact: Contact: Phone: Contact Conta
	Questions	Stakeholder Comments
1.	What has been effective in Alberta's historical approach to market power mitigation in the energy-only market, and what could be improved?	 What has been effective in the past is unlikely to be effective in the future. The evidence of Morrison Park filed in the capacity market proceeding (23757-X0344) identified four characteristics that benefited Alberta's energy-only market: "A roster of strong, local incumbent strategic players who had diversified portfolios of assets in other jurisdictions or in adjacent lower-risk businesses such as electricity distribution; Significant demand for power from large industrial customers who were also candidates for combined heat and power projects, which are inherently lower risk projects because their capital cost and resulting revenues is diversified across both electricity and heat supply; A group of long-term PPAs that underpinned the economics of a significant amount of generation capacity that pre-existed the creation of the market; and Extraordinary policy stability." Demand growth has now dropped below 1% per year, the PPAs are expiring, and policy has certainly not been stable in recent years. Only the strong local incumbents remain – with considerable market power. The MSA's 2019 Market Share Offer Control Report dated September 24, 2019 provides data suggesting an HHI on the order of 1,000, based on units' maximum capacity; but the competitive impact of generation facilities depends much more directly on their fuel source and dispatchability. If UCAP is used for the HHI calculation, the HHI nearly doubles to 1,900 just considering the four largest parties – all of whom are 'strong, local incumbents'. Market power is a serious concern in Alberta, and new approaches are needed.

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2.	Do you expect the historical approach to market power mitigation in the energy-only market (e.g. OBEG, ex-post monitoring, must offer, 30% offer control limit, FEOC Regulation) will be effective on a go-forward basis? If yes, please explain your rationale. If no, please explain your rationale and changes required.	The historical approach to market power mitigation is at best of historical interest. With the expiry of the PPAs the specter of market power has re-emerged. With the collapse of oilsands-driven load growth, investors must be much more cautious as premature capacity additions may take many years to 'use up'. Incumbents will may well continue to have a competitive advantage in this their 'home market', as Alberta's small market size and electrical isolation might not attract major outside investors.
		It would be presumptuous to prescribe a quick fix for this situation. A delicate balance is needed to provide generation owners with fair and reasonable returns, while mitigating market power concerns. As with the capacity market, what is needed is an extended industry dialogue and exploration with a high level of engagement by all stakeholders.
3.	If deemed that additional mitigation measures are required in the energy-only market, please indicate whether they should be applied ex-ante (mitigation occurs prior to prices being set) or ex-post (mitigation occurs following market prices being set).	Two mitigation measures stand out as of particular interest: an ex-ante Operating Reserve Demand Curve and ex-post conduct-impact assessment. These are laid out with particular clarity in the MSA's submission of evidence by Charles River Associates, Exhibit 23757-X0390, Market Design Issues in the Alberta Capacity and Energy Markets.
		"In Texas, the real time clearing is increased by the 'Real-Time Reserve Price' which is determined based on the level of reserves being maintain on the system in accordance with an operating reserve demand curve ("ORDC"). The ORDC reflects the incremental value of a MW of operating reserves at any given level of available operating reserves. It is based on Loss of Load Probability (LOLP) at that reserve level multiplied by Value of Lost Load (VOLL). For some levels of shortages, the real-time shortage price adder exceeds \$999/MWh." [op.cit. p.47]
		An ORDC appears to provide floor price certainty in physical shortage situations. Generators would know that in tight supply situations they would receive at least the ORDC values, supporting a reasonable level of price certainty that is rationally matched to customers' value of supply.
		In concept, the conduct-impact approach appears straightforward.
		"The conduct-impact test mitigation is a two-step process that uses "reference levels" to test both a participant's conduct as it relates to a competitive norm and its impact on the market. A reference level is an estimate of participant's competitive offer."



		"The first part of the conduct-impact test considers whether a participant's offer exceeds the resource's reference level by some pre-established threshold. If the threshold is exceeded, then a second part of the test determines whether the conduct (i.e., the offer) has caused an impact on the market clearing price for energy." [ibid. p.53]
		This approach is particularly attractive in that it allows for the existence of market power (which is a reality in the Alberta market), but provides a fair and objective test as to whether that market power has been abused. After all, it is not the possession of market power that creates the concern – it is the abuse of market power.
		Forcing incumbents to sell off generation resources, or imposing power purchase arrangements, to meet some target ownership levels would be completely inappropriate for Alberta. The province needs to attract investment, and forced asset disposition would be profoundly damaging to that goal.
4.	What has been effective in Alberta's historical approach to market power mitigation in the operating reserves market, and what could be improved?	The use of competitive processes to procure operating reserve is sound and should be continued. However the operating reserve market cannot be considered in isolation as it is a function of the energy market.
5.	Do you expect the historical approach to market power mitigation in the operating reserves market (e.g. FEOC regulation, indexed to pool price) will be effective on a go-forward basis? If yes, please explain your rationale. If no, please explain your	See preceding question.
	rationale and changes required.	
6.	If deemed that additional mitigation measures are required in the operating reserves market, please indicate whether they should be applied ex-ante (mitigation occurs prior to prices being set) or ex-post (mitigation occurs following market prices being set).	Depending on the strategy adopted, ex-ante or ex-post methods might be appropriate. No generalization appears defensible. However it is essential that the 'rules of the road' are clear and unambiguous <i>ex ante</i> , so that market participants can know with certainty what is and is not permissible.
7.	What criteria should be considered in evaluating Alberta's mitigation framework? Would you rank one or some of these criteria more highly than others?	The critical criterion for any mitigation framework is that it allows generators the long- run opportunity to earn a fair return on their investment, based on their performance.
		Assessing market mechanisms to meet this goal will be difficult, as "By 2030, approximately 19 per cent of energy is served by renewables and 81 per cent is served by natural gas." (AESO, 2019 LTO p.23) While the implementation of utility- scale solar projects like Greengate's 400 MW Travers development will be environmentally beneficial, they may well create a 'duck curve' reducing gas plant revenues to financially unacceptable levels. Wind generation may create similar

		revenue and ramping issues, albeit less predictably.
		There is reason to doubt the dogma that electricity will be a homogenous market whose participants can be managed through a single market power mitigation mechanism. This is not a question which can be answered by canvasing parties for their 'wishes' or 'criteria'; it will require intensive study, modeling and analysis carried out with objectivity and broad input.
		In reality, generators are the only market participants with the resources to carry out such work. Impartial expert agencies, including the MSA, AESO and AUC, should work together to address this difficult decision in a timely fashion.
8.	Are there unique characteristics of Alberta's electricity market that may impact whether the market power mitigation approaches used in other jurisdictions are suitable for Alberta? If so, please describe them.	Alberta's energy-only market structure is a rarity, and few jurisdictions are directly comparable. While other jurisdictions may have lessons to share, it appears that every electricity market is unique. Market design alternatives should be evaluated solely on their applicability to Alberta's specific structures.
9.	What do you think the appropriate role for the AESO is in Alberta's mitigation framework?	The Government of Alberta had directed the AESO "to provide advice regarding market power and market power mitigation." The specific roles of Alberta's various implementing agencies will depend on the Government's policy decision.
10.	What do you think the appropriate role for the MSA is in Alberta's mitigation framework?	It seems reasonable to expect that under all scenarios the MSA will continue in its role of surveillance, investigation and enforcement. The AUC should of course continue in its fair and unbiased quasi-judicial role.
11.	Please describe your role in the Alberta electricity market.	Recognizing the importance of this issue, and having served in the electric industry for some 36 years, this submission is provided on an independent <i>pro bono</i> basis to assist the AESO in its deliberations.
	 Are you a load, a generator, both, neither (e.g. developer, storage, interested party) 	This submission seeks to balance the interests of all market participants, recognizing our interdependence.
	b. What is the approximate size of your load and/or generation?	
	c. Do you participate in the energy market, AS market, both?	
	d. Do you forward hedge? If so, is it physically, financially, both? What percentage of your portfolio is hedged?	



Thank you for your input. Please email your comments to: stakeholder.relations@aeso.ca.