

Summary of Written Stakeholder Input on the 12 Times Ramp Rate Issue and the IESO Management Response

Stakeholder Input	IESO Management Response
<i>AMPCO</i>	
AMPCO has rejected the APPrO proposal for a ramp supplement payment. AMPCO states APPrO has failed to prove that current market payments are not sufficient to cover the cost of ramp. They further suggest that based on the five criteria below, the APPrO proposal should be rejected.	
Any mechanism should be transparent in sending the correct signals to the market.	Agree that uplift payments are not transparent, and that the market is better served when as many costs as possible are covered by the energy payments.
Any mechanism should provide incentives for appropriate market responses.	Agree that uplift payments are not transparent, and that the market is better served when as many costs as possible are covered by the energy payments.
A new mechanism to compensate generation that provides ramping services should not increase revenue to entities that do not provide ramping services.	Do not agree that energy from different providers should be paid at different rates.
A new mechanism should improve the efficiency of the electricity sector as it currently exists, as opposed to a hypothetical electricity market which may or may not exist in the future.	Agree that the proposed APPrO payment does not increase allocative efficiency of the current market.
In all cases, the impacts on customers must be assessed and consumer interests must be protected with respect to the price, adequacy, reliability and quality of electricity service.	The interests of all market participants, both consumers and suppliers, must be considered when evaluating options. While the current twelve times/unconstrained pricing method is the status quo, IESO has stated that it does not represent the “correct” price method against which all other options must be compared.
<i>APPrO</i>	
Returning to the market design of one times myopic pricing in the unconstrained algorithm is the correct solution to the question of twelve times ramp.	Do not agree that 1X myopic is the correct solution. The original market design was for pricing and dispatch to be calculated similarly, which at that time was for both algorithms to use a 1X myopic method. The dispatch algorithm is now based on Multi Interval Optimization (MIO) so using 1X myopic dispatch in the pricing algorithm would continue to cause differences between pricing and dispatch calculations. 1X myopic pricing overstates the value of ramp relative to the MIO dispatch, thereby producing incorrect market signals.

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<p>The IESO is overusing dispatch and moving units contrary to demand changes because the DSO does not recognise ramp costs.</p>	<p>Many things combine to create the need to move generator outputs including changes to demand, participant bid/offers, intertie schedules, transmission limits and OR requirements. Dispatch Issues Working Group has recently made changes to address some of the generators' concerns with dispatch. The effectiveness of these changes will be monitored and assessed over time before considering the possibility of adding the additional constraint of ramp costs in the DSO.</p>
<p>Five reasons why it is not appropriate to include ramp costs in generators' offers and therefore a supplemental ramp payment is appropriate:</p>	
<p>This would raise price to all suppliers – even those who aren't providing ramp</p>	<p>Do not agree that energy from different providers should be paid at different rates. Uplift payments are not transparent, and the market is better served when as many costs as possible are covered by the energy payments. This is consistent with APPRO's preferred solution of a IX myopic price.</p>
<p>Offers must reflect the marginal cost of production – doing otherwise reduces the participant's profitability – and costs associated with ramp are not incremental.</p>	<p>Believe that ramp costs are similar to other non-incremental, avoidable costs that are expected to be recovered when prices are higher than marginal cost. It is reasonable that avoidable costs be included in offers if there is danger that revenue won't cover them, but it is the choice of the generator whether or not to do so.</p>
<p>Including ramp costs in offers insulates the IESO from the cost consequences of their actions. This proposed payment would expose the IESO's erratic dispatch and force action.</p>	<p>Many things combine to create the need to move generator outputs including changes to demand, participant bid/offers, intertie schedules, transmission limits and OR requirements. Dispatch Issues Working Group has recently made changes to address some of the generators' concerns with dispatch. The effectiveness of these changes will be monitored and assessed over time before considering the possibility of adding the additional constraint of ramp costs in the DSO.</p>
<p>Ramp payments would incent appropriate operational response to dispatch and would therefore improve reliability.</p>	<p>The current mix of compliance processes and dispatch deadbands provides for sufficient system reliability. Reliability will be most significantly enabled when the real-time price fidelity is improved, thereby providing the right signals to non-dispatchable generators and consumers, and exporters.</p>
<p>Ramp payments ensure that adequate ramp is available – new generation will include ramp capability if they know there is a separate payment for it.</p>	<p>In a system with real-time price fidelity, the ability to ramp quickly to take advantage of energy and/or OR prices should be sufficient incentive to build ramp capability into peaking and mid-range generators that one would normally expect to have ramping abilities. If implemented, this ramp payment would be a short term measure and as such would not likely impact long term decisions.</p>

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<i>Brookfield Power</i>	
1X myopic would be consistent with original market design. Arbitrage with neighbouring markets would prevent significant price change in Ontario.	Do not agree that 1X myopic is the correct solution. The original market design was for pricing and dispatch to be calculated similarly, which at that time was for both algorithms to use a 1X myopic method. The dispatch algorithm is now based on Multi Interval Optimization (MIO) so using 1X myopic dispatch in the pricing algorithm would continue to cause differences between pricing and dispatch calculations. In effect, 1X myopic pricing overstates the value of ramp relative to the MIO dispatch, producing incorrect market signals. Agreed that arbitrage will have mitigating effects on the price impact of any change.
1X MIO pricing best meets long-term objective of aligning pricing and dispatch, but implementation would take too long and delay further evolution.	Agreed.
Recommend supplemental ramp payment as an interim solution as it has widest stakeholder support and can be implemented quickly and cheaply.	This option no longer has the support of the consumer community. Implementation time for a ramp payment option is in the range of 6 months, whereas implementation time for a change in the ramp rate is short. Uplift payments are not transparent, and the market is better served when as many costs as possible are covered by the energy payments.
<i>Bruce Power</i>	
1X myopic is the correct solution that is consistent with the concepts originally outlined by the Market Design Committee.	Do not agree that 1X myopic is the correct solution. The original market design was for pricing and dispatch to be calculated similarly, which at that time was for both algorithms to use a 1X myopic method. The dispatch algorithm is now based on Multi Interval Optimization (MIO) so using 1X myopic dispatch in the pricing algorithm would continue to cause differences between pricing and dispatch calculations. In effect, 1X myopic pricing overstates the value of ramp relative to the MIO dispatch, producing incorrect market signals.
Endorses the supplemental ramp payment option, although concerned about the associated uplift increasing the electricity-related costs to consumers that cannot be hedged.	Agree that uplift payments are not transparent, and that the market is better served when as many costs as possible are covered by the energy payments.
Need to resolve the interties setting price issue.	The Market Pricing Working Group is currently addressing this issue.
<i>Direct Energy</i>	
All presented options would require further stakeholder and IESO work and delay DAM. Direct Energy supports the adoption of an expeditious, even if imperfect, solution to allow development of DAM.	Agree that the solution chosen should be quickly and easily implemented to allow work on further evolution to proceed ASAP. Implementation time for a change in the ramp rate is short.

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<i>Ontario Power Generation</i>	
Real-time pricing and dispatch issues (such as 12X, inerties setting price, nature and frequency of dispatch instructions) must be dealt with before further market evolution.	Believe that many of the possible solutions to real-time issues could be facilitated by the existence of a day-ahead market, and therefore should not be addressed separately, but in conjunction with a day-ahead market implementation.
1X myopic is the preferred solution as it is a return to the original market design. 12X is a fiction that cannot be maintained as it damages our market's credibility.	Do not agree that 1X myopic is the correct solution. The original market design was for pricing and dispatch to be calculated similarly, which at that time was for both algorithms to use a 1X myopic method. The dispatch algorithm is now based on Multi Interval Optimization (MIO) so using 1X myopic dispatch in the pricing algorithm would continue to cause differences between pricing and dispatch calculations. In effect, 1X myopic pricing overstates the value of ramp relative to the MIO dispatch, producing incorrect market signals.
OPG does not support MIO as it is too complex and no less arbitrary than 12X.	Believe that one of the MIO pricing options represents the best that can be achieved in matching pricing with dispatch in the absence of locational pricing. Agreed that it is complex and would be time-consuming to implement.
OPG supports the APPrO proposal for a supplemental ramp payment.	Uplift payments are not transparent, and the market is better served when as many costs as possible are covered by the energy payments. This is consistent with OPG's preferred solution of a 1X myopic price.
<i>Optimal Technologies</i>	
Suggests including and rewarding demand response to provide ramp, thereby reducing the need for generators to provide ramp. Suggest that this would be most feasible for the top-of-hour ramp requirements due to import/export changes and the amounts paid to loads could be allocated to the importers/exporters.	Uplift payments are not transparent, and the market is better served when as many costs as possible are covered by the energy payments. Ideally, if the price reflects the costs, then the appropriate signals will exist for demand response. With the price being set every 5 minutes, there should be no need for specific payments for ramp services.
<i>TransCanada Energy</i>	
1X myopic is the correct solution since it reflects the realistic generator capabilities. However, in recognition of stakeholder concerns of the associated price impact, a staged approach to the change is suggested where the multiplier would be reduced to 9 immediately, followed by 6, 3 and 1 at six month intervals.	Do not agree that 1X myopic is the correct solution. The original market design was for pricing and dispatch to be calculated similarly, which at that time was for both algorithms to use a 1X myopic method. The dispatch algorithm is now based on Multi Interval Optimization (MIO) so using 1X myopic dispatch in the pricing algorithm would continue to cause differences between pricing and dispatch calculations. In effect, 1X myopic pricing overstates the value of ramp relative to the MIO dispatch, producing incorrect market signals. Our recommendation to implement 3x in effect represents a staged approach while an enduring pricing model is being explored.
The supplemental ramp payment is not appropriate as generators can adjust their energy offers to compensate for their ramping costs.	Agreed. Uplift payments are not transparent, and the market is better served when as many costs as possible are covered by the energy payments.