

## **Velocity American Energy Master I LP**

Please see below our feedback regarding 2017 Roadmap Initiative Ranking Process.

### **6.7.2 Implement Point-to-Point Convergence Bids (D)**

CAISO currently has virtual supply and virtual demand bidding at select Pricing Nodes in the Day Ahead market. Although in theory it makes sense to be able to bid or offer at individual pricing nodes and thereby hedge the risk to Day ahead to Real-time price spread, a far more effective way would be to have the ability to bid or offer “spreads”, i.e. price differential between nodes. Most market participants are more exposed to some form of risk in price differentials than absolute price itself at the pricing node (s) of interest to them. The reason for this is that most of the trading on exchanges like ICE happens at the “liquid” hubs. So a resource or a load or a financial entity that has price exposure at individual pricing node often hedge the risk ahead of time by transacting a spread between their pricing node and a liquid hub with counter-parties. Such hedges are often preferred and are easier to procure. So most market participants have some form of spread risk and currently there is no avenue to hedge that risk in the day ahead. The only way to hedge a part of such spread risk (congestion component) is through participation in the CRR market. But CRR’s are not daily instruments and market participants often may not want to hedge an entire month with the CRR. So a point-to-point convergence bid would be very helpful in managing the spread risk on a daily basis.

A point-to-point convergence bid also has the potential to improve efficiency in CAISO dispatch because it mimics the actual constraint/contingency based optimum power flow dispatch more closely. Intuitively it makes sense to be able to get bids and offers for price differential in the day ahead market as it is more in line with constraint pricing. If market participants have a better avenue to bid and offer what they might perceive as the fair price of a constraint, that has the benefit of making CAISO dispatch more efficient. In the current convergence bidding mechanism, a market participant that may have a view on a fair price for a spread (or constraint that causes a spread) will have to break the components that make the spread into a virtual bid and a virtual offer. While bidding the individual “legs” of the spread, the market participant has the risk of clearing one part of it without the other which is not desired. So to ensure clearing the spread the market participant may have to be a price taker. This limits the quantity he/she can bid or offer as one would not want to risk being exposed to Day ahead market price too much in an effort to hedge real-time market price. So this limitation translates into an inefficiency in the dispatch as now market participants are not able to fully express their views in the day ahead market. We believe a point-to-point convergence bidding mechanism would eliminate this inefficiency and serve to improve CAISO dispatch and also serve market participants better with an intuitive product they can use more effectively to manage the price risks in the Day ahead market. We strongly support Implementing Point-to-point Convergence bidding.

### **6.6.1 Congestion Revenue Rights Auction Efficiency (D)**

We believe that the approach being suggested by Department of Market Monitoring (DMM) of California ISO to radically change the current auction mechanism into a non-auction allocation mechanism is fundamentally flawed and the Stakeholder initiative (CRR Auction Efficiency (D) ) is a step in the wrong direction that is adverse to competition in a market-based approach to dealing with transmission congestion. First of all, the premise that CRR auction revenues will have to exactly offset payments to CRR holders for the CRR auction market to be deemed efficient is incorrect. This is because CRR auction revenue incorporates a risk premium/discount as priced by the market participants individually and collectively represented through the clearing of the auction bids and offers. The two (CRR auction revenues and payments to CRR holders) will never offset each other unless the risk premium is non-existent. DMM seems to suggest that there should be no risk premium for an efficient market which is incorrect.

DMM's approach is also contrary to established practices in other LMP based electricity markets in the U.S. and in other countries where congestion revenue markets have been functioning well. For example FTR market in PJM the largest LMP market in the country has functioned for over a decade and is instrumental in price discovery for hedging congestion and for transmission development. . While there is no guarantee of full revenue adequacy, full funding of CRRs is an attainable goal and has been achieved recently in PJM, as well as NYISO, among others. In fact, the Midwest ISO in response to a similar situation undertook modeling enhancements in 2013 and 2014 and was able to achieve consistent full funding of FTR's except for one or two months in 2015 and 2016. PJM FTR market has been over funded (collected more from CRR revenues than payments) in 2015 after being underfunded in prior years and the reason is the modeling enhancements performed. This is certainly possible through modeling improvements and outage information modeling among others as well as providing more opportunities for price discovery through more frequent auctions.

In fact the trend in well established markets has been to extend congestion revenue markets time frame beyond one year and offer more opportunities to participate in them more frequently (Multi period auction in Midwest ISO, balance of planning year auction every month in PJM, and Long term congestion market in PJM etc). DMM's approach is in direct contradiction to such a significant trend in other organized electricity markets to expand market based approach to congestion; it would limit market participation for all stakeholders, drying up liquidity in the market almost completely and thereby eliminating any price discovery in the market. This would be detrimental to congestion hedging for load serving entities and would have an adverse effect on the end users.

More importantly, given the emphasis on renewable participation in CAISO markets, DMM's approach to Auction efficiency through a non-auction process would also be significantly

counter-productive for incentivizing renewable participation in the broader CAISO territory markets; it is important for renewable energy developers to be able to get an indication of market price for congestion (from the connection node to liquid trading hubs or load aggregate hubs) for securing debt or selling power to LSE's through power purchase agreement that could extend from a few months to few years. DMM's proposal on CRR Auction Efficiency would make it impossible for renewable developers, banks/creditors, LSE's to adequately receive pricing information on congestion hedges available in the CAISO market. This has the potential to make the process opaque and volatile and the volatility to spill over into the term markets for power in CAISO. DMM's approach also has the risk of introducing volumetric risk through allocations. The approach is rigid and would limit the opportunities to rebalance LSE's congestion hedging needs as there is no guarantee that when an LSE needs to rebalance its congestion hedges there may be any liquidity on CRR spreads/paths it desires to buy or sell. On the other hand, a liquid CRR auction based market will be the best avenue to reduce or add to congestion hedges as a variety of market participants submit their bids and offers and the market is cleared on supply and demand ensuring liquidity. A liquid CRR auction based market represents a process which highlights the inefficiencies and thus gives an incentive to improve or take a risk on new initiatives and service and in turn save costs and maximize the profit. If there is persistent inefficiency, the root cause of such inefficiency would need to be analyzed and the auction clearing processes itself needs to be improved as opposed to eliminating the auction process.

In the current competitive market in place, every market participant has access to the same information. There is no unfair advantage to any one or one type of market participant. There is nothing that inhibits non-financial participants from participating in the CRR market as every other market participant. So the right approach is to enhance CRR auction processes, closely study the models and assumptions in the market clearing process and improve upon the existing CRR auction market and not altogether eliminate a competitive market with an essentially bilateral market which almost certainly will result in much lower liquidity. It would be anti-competitive and result in arbitrary outcomes that have severe consequences for the broader CAISO markets. Any attempts at replacing price discovery through the auction process that has been well established in functioning LMP markets for many years in the U.S by non-market mechanism are reminiscent of the planned economy. So we feel CAISO should look into approaches for enhancing CRR auction process by studying the improvements made in other LMP markets like PJM, MISO that have faced this issue and have effectively solved it. We strongly discourage CAISO from implementing the approach being proposed by DMM for CRR Auction Efficiency.