

Impact of Convergence Bidding on Interties  
Revised Straw Proposal Issued 6/10/11  
Comments of Morgan Stanley Capital Group Inc.  
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Overview

Morgan Stanley Capital Group Inc. (MSCG) has reviewed the June 10 Revised Straw Proposal regarding the Impact of Convergence Bidding on the Interties. MSCG was among those who requested that the CAISO investigate the problem of tie bidders, especially on exports, being awarded energy at prices above their bid curves. Over the last few months, our understanding of the causes of the problem has grown tremendously; so has our appreciation for the practical difficulties of implementing a quick solution without creating adverse side consequences.

As a result of the discussions, we have come to the following conclusions:

- Elimination of convergence bidding at the ties is a “cure” that is worse than the “disease”.
- If no good short-term fix can be devised, MSCG strongly recommends that the status quo be maintained until the underlying cause can be permanently addressed in the next phase of overall market design “tune-up”.
- With regard to the related problem of the creation of imbalance energy offsets (neutrality costs), it has yet to be demonstrated that convergence bidding is a primary cause, that contributions from settling day-ahead convergence bids will always have the same sign and magnitude, or whether or not recent upgrades such as the “flexible ramping product” will significantly modulate any contributions of convergence bidding to offset energy charges.
- More analysis is required to better understand the full dynamics between the Day Ahead, Hour Ahead and Real Time prices. The full benefit of Intertie convergence bidding needs to be evaluated including facilitating the import of Renewables, impact on Day Ahead prices and impact on physical Incremental and Decremental bids on the Interties.

We will discuss each of these conclusions in more detail below.

Magnitude of the Problem

MSCG is among those who have suffered losses due to being awarded export energy above the price we bid. As has been revealed during this ongoing stakeholder process, this market quirk was anticipated during the design phase, and expected to be a rare occurrence, and therefore one that could be tolerated. In practice, it has turned out to be much more frequent than anticipated, and the financial impacts have not been immaterial. For those reasons, it was certainly advisable to explore ways to fix the problem. That having been said, the assumption that the negative financial impacts would be “tolerable” has not proven wrong, at least in MSCG’s case. For that reason, MSCG strongly believes that, if no suitable short or intermediate term “fix” can be devised, then

the preferred course is to maintain the status quo until a comprehensive redesign can address the problem in a way that does not create problematic side effects.

Aside from the problem of exporters being awarded schedules at prices outside their bid curves, a related issue has been the degree to which settlement of day-ahead convergence bids at HASP instead of the Real-Time Dispatch price creates uplift. MSCG would not dispute that practices that systemically create uplift need to be corrected. However, we do not believe the evidence so far supports the conclusion that Intertie Convergence Bidding creates ongoing, systemic uplift at the expense of load. To date, there are four complete months of data, and the offset costs have varied widely. Even in the highest cost months, the total dollar amounts have not exceeded highs reached in months that preceded the onset of convergence bidding (June and July 2010), when the energy bid cap was 25% lower than it is now. In addition, CAISO points out that the volume and impact of balanced virtual transactions have drastically declined in recent weeks without any intervention- perhaps a sign that the market is maturing without the aid of additional settlement rules or other tariff modifications. Finally, to the extent that convergence bidding may have contributed to offset energy costs at first, the impact of the “flexible ramping” product needs to be assessed to see if it contributes to improving the situation, if it in fact proves to persist.

Similar to the issue of physical exports being awarded above their price, MSCG feels the preferred course is to address the Real Time Imbalance Energy Offset (RTIEO) under the next market redesign, with the CAISO maintaining the ability to make an emergency filing for a settlement rule should the RTIEO exceed \$25mm in any given month.

### Other Solutions

To the extent that it can ultimately be demonstrated that Convergence Bidding at the interties contributes to unacceptable amounts of uplift, MSCG believes that there are several options for further study short of discontinuation of convergence bidding at the ties. The ones below, as well as others that might be suggested by other Stakeholders, should be fully evaluated and perhaps implemented, even with minor flaws, before applying the “death penalty” to Intertie convergence bidding. Options worth evaluating in further detail include:

- The core of the Powerex proposal (absent suspension of Convergence Bidding)
- The broader use of the RUC market or a similar hourly RUC process to alleviate the CAISO’s reliability concerns associated with liquidating internal virtual supply and demand in RTD. Can CAISO expand upon the nature of these reliability concerns? If CAISO knows the load forecast and the amount of the supply stack that is virtual prior to the HASP run, is that not enough information to dispatch reliably while allowing the market process to run into RTD? In addition, aren’t resources behind the ties already still available to CAISO after the HASP run if there was to be a reliability event?

## Policy Questions and Other Impacts

There are some additional policy issues that need to be thought through when evaluating the overall situation. First, Convergence bidding at the Interties plays a significant role in facilitating the importation of Renewables in fulfillment of the state's Renewable Portfolio Standard goals. Several state agencies including CPUC, CEC and ARB are looking at policies to increase the quantity of renewable generation that is scheduled directly into California. For these renewable projects, located in neighboring states, but constructed to meet California RPS, convergence bidding is a valuable tool in being able to bid virtual supply in the Day Ahead market on the interties according to their Day Ahead forecast. In real-time, when the forecast is known with more certainty and incremental transmission is generally more available, the renewable resource can then bid physical energy to match its schedule in HASP. Convergence bidding on the interties allows the renewable resource to lock in a Day Ahead price for its expected generation while only committing to physical schedules once its output is known with more certainty in real-time. Without convergence bidding, the renewable resource would either have to bid in physical megawatts in the Day Ahead and risk potentially over procuring transmission if the forecasted output did not materialize, or wait to bid into the HASP market and risk not getting dispatched in HASP and having to curtail its output. Both of these are inefficient outcomes when compared with using virtual bidding at the interties to manage forecasted output of intermittent generation.

Second, the argument that current convergence bidding on the interties, makes no contribution to the market or to load, may not accurately capture the full dynamics of the interactions among the prices. Day Ahead convergence supply offers (including those on the interties) serve to lower the Day Ahead SMEC and are an important counter balance to Day Ahead convergence demand bids. Removing convergence bidding on the interties may remove an important source of convergence supply offers. Therefore, the nominal uplift may be partially, completely or even more than completely offset by the benefit in price reduction by maintaining convergence bidding on the interties. This benefit, however, would not show up using the current calculation methodologies. This possibility merits further analysis.

## HASP Import Reductions and Deviations from HASP schedules

MSCG also feels that the proposed new rules for HASP import reductions and deviations from HASP schedules could have unintended consequences that need to be reviewed.

With respect to assigning RTIEO to HASP import reductions, MSCG notes that, in a separate initiative, CAISO is trying to get an increase in decremental bids (Renewables Integration Market and Product review Phase I). Decremental bids often, if not primarily, result from parties unwinding day-ahead schedules. These unwinds of Day Ahead schedules are often on the interties and provide CAISO with much needed liquidity to dispose of energy when internal generation is limited and ramp-constrained. It is axiomatic that, if you want more of something, you should not make it more costly for suppliers to provide it. Proposals to assess uplift or other charges to those

decremental bids, or otherwise make it more costly or less profitable to provide those bids, work at cross-purposes to the objective of getting more decremental bids.

Additional penalties via inclusion of the Real-Time Imbalance Energy Offset to decremental bids against day-ahead imports are not necessary to discourage implicit virtual bidding. CAISO has already sufficiently discouraged implicit virtual bidding by implementing the HASP Reversal Settlement Rule, which eliminates any arbitrage revenue gained from bids that are not tagged for an SC's day ahead market award. Tagging prior to the HASP timeframe demonstrates an explicit, physical schedule with resource and transmission commitment. Unwinding that physical import schedule in the HASP has nothing to do with implicit virtual bidding, thus assigning the RTIEO to that action to discourage implicit virtual bidding is not warranted. Should the RTIEO be assessed to decremental bids against day-ahead imports, that cost would surely be factored into SC's decremental bid curves and potentially bias the HASP settlement even lower, exacerbating the uplift. Furthermore, it is not consistent with how CAISO treats unwinds of schedules for internal generators. For these reasons, MSCG is against the proposal to have HASP import reductions included in the Real-Time imbalance energy offset allocation.

MSCG also notes that assigning the RTD price to HASP awards that are non-performing could have the unintended consequences of drying up liquidity in the very hours that CAISO needs more incremental offers in the real-time market. On low or average load days when the RTD price is not extreme this shouldn't be a concern. But on peak load days, when the RTD price is very high and the CAISO is requesting additional incremental bids from its market participants, some may reconsider the risk – reward ratio of offering additional MW to the CAISO if they risk having to pay RTD prices nearing \$1000/mw.h if there is a curtailment to their transmission that is outside their control. Peak load days are often correlated with units and the transmission network being stretched to the limit and thus greater chances of forced outages both for generation and transmission. Again, it seems counterintuitive to place a potential charge on market participants and risk drying up liquidity on peak load days if those are the same days that CAISO wants and needs incremental supply in the real-time market. This is especially true since there is no provision under the CAISO tariff to recognize force majeure events. MSCG urges the CAISO to review the potential adverse side effects of this proposed rule.

MSCG recognizes the effort the CAISO has undergone to try to develop sound solutions to this set of exceptionally complex problems. We appreciate the opportunity to comment on the various options being explored. If there are questions, or any desire for more in-depth discussions of any of our points, please feel free to contact Steve Huhman at (914) 225-1592, or via e-mail at [Steven.Huhman@morganstanley.com](mailto:Steven.Huhman@morganstanley.com).