

Attachment A

Options Considered for Scheduling Requirement Under MRTU

“Forecast versus Vertical Demand Bid”: Under this option, LSEs would Self Schedule a percentage (e.g. 95%) of their load in the Day-Ahead Market (DAM). The LSE would be a price taker for the amount of load that is Self Scheduled. In addition, the LSE would submit to the CAISO their forecasted load data by a set interval (e.g. hourly) prior to the DAM. To ensure compliance, the CAISO would compare the forecasted load by LAP with the amount that is Self Scheduled to ensure that the correct amount is Self Scheduled in the DAM by LAP. The SC would be subjected to the Enforcement Protocols in the Section 37 of the MRTU Tariff, which is a general requirement that participants comply with all provisions of the CAISO Tariff.

After careful consideration, the CAISO determined that the vertical demand bid option does not meet the objectives outlined in the two FERC Orders. This option reduces the value of the DAM, and would prevent LSEs from taking steps to reduce the costs of serving load. Furthermore, the CAISO identified that this option is not compatible with the new Demand Response initiatives to be implemented at the start of MRTU (i.e., submitting economic load bids designed to accommodate LSE demand response programs).

“Forecast versus Maximum Amount Bid”: The CAISO would compare the LSE’s DA forecast (by LAP) versus the maximum quantity that is bid in the DAM (by LAP) to ensure that a defined percentage (possibly 90% or 95%) is bid into the DAM. Unlike the “vertical demand curve” option, the LSE could submit Economic Bids (price-quantity bids). This option does not require the bids to clear. In effect, this option is analogous to a “must-bid” requirement for suppliers with a relatively high price cap. The SC would be subjected to the Enforcement Protocols in Section 37 of the MRTU Tariff, which is a general requirement that participants comply with all provisions of the CAISO Tariff.

LSEs preferred this approach and emphasized the benefits of maintaining the integrity of the DAM, and having the ability to submit economic bids. While this option required some exchange and evaluation of forecast data, the added complexity was seen to be a reasonable trade-off to avoid the concerns associated with implementation of a penalty. After further research and consideration of the stakeholder input, the CAISO concluded that without the establishment of a price floor, this option does not meet the standards outlined in the FERC directive, in that it does not address the potential economic incentive for LSEs to underschedule in the DAM. The CAISO also has concluded that reaching consensus on the establishment of a bid-price floor is not feasible at this time.

“Incentives Built into MRTU Design” This option highlights the financial incentives already built into MRTU that are sufficient to deter underscheduling, while still allowing LSEs the flexibility to avoid supplier market power. This option also suggested implementation of monitoring provisions for the Department of Market Monitoring (DMM) to ensure that LSE DAM bidding and scheduling practices are not depressing prices below competitive levels. In the event that DMM does find LSE behavior to be problematic, the CAISO could then trigger a penalty.

Many LSEs were in favor of this option. However, some expressed reluctance to fully support this option without explicit details about the “trigger” concept. DMM pointed out the challenges they would face if tasked with identifying whether underscheduling is having a significant impact on DAM prices. Alternatively, some stakeholders were strongly opposed to this option, and they contended in their comments that raising the price of serving Demand in Real Time does not address the “incentive” to under-schedule in the DAM. The CAISO concluded that this option may not be comprehensive enough to be considered by the FERC as a new interim measure to prevent Day-Ahead Underscheduling. The CAISO also concluded that implementation of any financial consequences via a trigger must be based on simple and transparent metrics.

"Interim Scheduling Charge" This option involves the creation of a new settlements charged that would be assessed to underscheduled load. The design of this option went through several iterations during the stakeholder process to refine the parameters to achieve the goals outlined in the FERC directive. Proposed exemptions, bandwidths, and rates were debated. Ultimately, the CAISO settled on a variation of this option as part of a two-step solution, the Interim Scheduling Report and Charge, which is imposed if persistent underscheduling is determined by the bright line rule as further described below and in Attachment B.

"Interim Scheduling Report and Charge with FERC Review" This option includes the same thresholds as the Interim Scheduling Charge, but results in the creation of a report that would be submitted to the FERC and publicly published when net negative load deviations exceed the identified thresholds. Under this scenario, any enforcement actions would be within the sole authority of FERC. The CAISO would maintain the ability to implement the Interim Scheduling Charge, if directed to do so. While some stakeholders preferred this option, others have stated that by leaving the implementation to FERC creates too much uncertainty, and that the CAISO tariff should provide clear thresholds that define appropriate market behavior. It should also define the consequences of exceeding those thresholds, and provide a direct mechanism by which the consequences are imposed. This approach was presented for "information only" at the July 18 CAISO Board of Governors meeting.

"Interim Scheduling Report and Charge with Bright Line Rule" This option includes the same thresholds as the Interim Scheduling Charge, but results in the creation of a report by the CAISO that includes a bright line rule that defines persistent underscheduling. The information would not be submitted to FERC for review, and the CAISO would be responsible for determining whether the Interim Scheduling Charge will be applied. After careful consideration of stakeholder feedback, the CAISO determined that the bright line trigger should be set at 36 hours per month to limit scheduling behavior outside of the charge threshold and to allow for load serving SCs to alter their behavior to avoid future assessments of the charge. If triggered, the CAISO would implement the Interim Scheduling Charge.

Attachment B

Design of Interim Scheduling Report and Charge

Report:

The CAISO will provide confidential reports to SCs on a weekly basis as metered data become available in order to provide the timeliest data possible.

SCs will be subject to the Interim Scheduling charge if they exceed the value established in the bright line rule. The "bright line" is based on the number of incidents per month in excess of 36 hours, above the 15% threshold.

Any Interim Scheduling Charges would be incurred on a going forward basis from the time the CAISO has determined that the SC exceeds the bright line criteria rather than being imposed on a retroactive basis.

Rates and Thresholds:

For any given Trading Hour in which the Scheduling Coordinator's Net Negative Deviation of CAISO Demand in its applicable LAP is greater than fifteen (15) and less than twenty (20) percent of the Scheduling Coordinator's cleared total CAISO Demand as represented in its Day-Ahead Schedule in its applicable LAP, the Scheduling Coordinator shall pay \$150 /MWh for its Net Negative Deviation of CAISO Demand that is greater than fifteen (15) and less than twenty (20) percent of its cleared total CAISO Demand as represented in its Day-Ahead Schedule in the applicable LAP in that Trading Hour.

For any given Trading Hour in which the Scheduling Coordinator's Net Negative Deviation of CAISO Demand in its applicable LAP is greater than or equal to twenty (20) percent of the Scheduling Coordinator's cleared total CAISO Demand as represented in its Day-Ahead Schedule in its applicable LAP, the Scheduling Coordinator shall pay \$250 /MWh for its Net Negative Deviation of CAISO Demand greater than or equal to twenty (20) percent of its cleared total CAISO Demand as represented in its Day-Ahead Schedule in the applicable LAP in that Trading Hour.

Exemptions:

Load Forecast For any given Trading Day for each applicable LAP in which that Trading Day's CAISO's daily peak Demand Forecast is 95% (or less) than actual metered CAISO Demand in the respective northern and southern regions of the CAISO Control Area as further described in the Business Practice Manuals.

Small Load For any given Trading Hour when a Scheduling Coordinator's peak metered CAISO Demand is less than or equal to 500 MW in a particular LAP.

Participating Load All metered CAISO Demand by Participating Load shall not be subject to the Interim Under-Scheduling Charge.

Load Following Meter Sub-System All metered CAISO Demand that is MSS Load Following Demand shall not be subject to the Interim Under-Scheduling Charge.

Price Difference For any given Trading Hours when the Hourly Real-Time LAP Price is less than the Day-Ahead LAP Price for the same Trading Hour.

Allocation of Revenue Collected Under the Interim Under-Scheduling Charge Any revenues collected with the assessment of the Interim Under-Scheduling Charge shall be treated as "Other Revenues" as indicated in Schedule F, of Part C of the CAISO Tariff. The Interim Under-Scheduling Charge revenues will be used to offset the revenue requirement associated with the Market Usage Charge

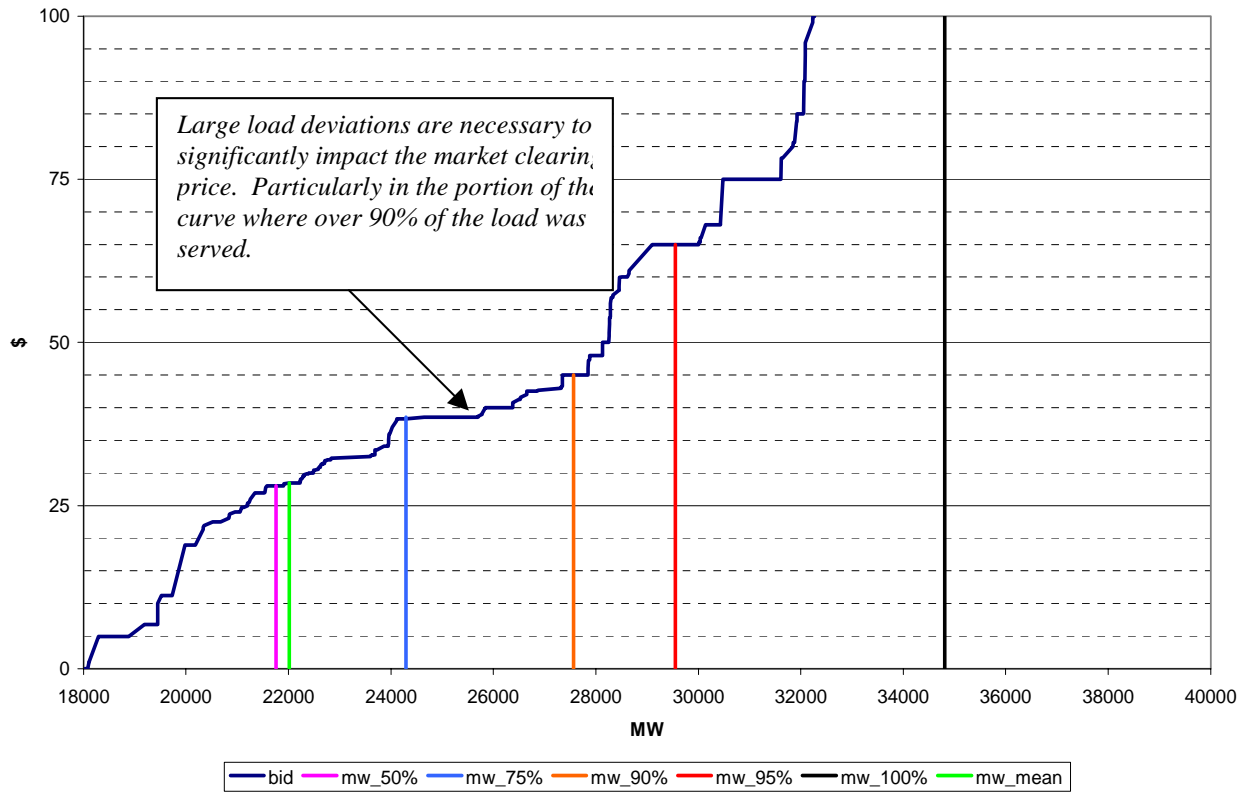
Attachment C

Rationale for Small Load Exemption

The FERC in its September 21, 2006 Order, stated its concern that without convergence bidding, participants with market power may have the ability to price discriminate between the Day-Ahead and Real-Time Markets, resulting in a forward price that is systematically different than the expected Real-Time price. The CAISO has structured the Interim Scheduling Charge to address this concern and in doing so has included an exemption from the charge for smaller LSEs that would not have the ability to adversely impact the DAM price. In addition, the small load exemption was included in the design of the charge to ensure that smaller LSEs that tend to have more volatile loads are not adversely impacted given the more uncertain nature of their loads. For example, a small LSE that serves only a few large industrial loads could easily see its load fluctuate significantly in response to a change in operations at one of the industrial facilities that it serves. Such an occurrence could easily push the small LSE past the 15 percent Day-Ahead scheduling requirement threshold, yet have a minimal impact on the DAM price. A similar event would have a much smaller impact on the load deviation of a large LSE that serves a diverse customer base.

The CAISO further examined the small load exemption to better understand the level of underscheduled Demand that could have a significant price impact on the Day Ahead Market price. The CAISO examined a typical summer day supply curve from the California Power Exchange (PX), which operated a day-ahead energy market from 1998 through 2000. We believe that this is a reasonable approach to analyzing the potential impact on price of DAM underscheduling as this represents the last available period for a day-ahead supply curve in California that was not impacted by the severe market dysfunction of 2000 and 2001. The actual day-ahead market supply curves under MRTU will likely be extended and have a somewhat lower slope at most load levels due to significant additions of more efficient generation resources over the past eight years and the retirement of several resources that would likely be found on the steeper, higher cost sections of the curve.

Power Exchange DA Supply Curve - July 14, 1999 HE 17



As part of the analysis of the PX supply curve shown above, the mean load during served by the day ahead market in 1999 was 22,000 MWs. We also found that 95 percent of the load served by the DA market was served at load levels that were less than 29,500 MWs. Therefore, we found that it was reasonable to focus on portion of the supply curve below this level, represented by the vertical red line in the figure. 90th, 75th, and 50th percentiles are also illustrated on the figure. As illustrated by the curve, load swings of plus or minus 1,000 MWs from the average Demand (e.g., 21,000 MWs or 22,000 MWs), change the price by about \$5.00. At this point on the supply curve, therefore, we find that even at the 1000 MW level of LSEs would have a limited ability to significantly impact the DAM clearing price.

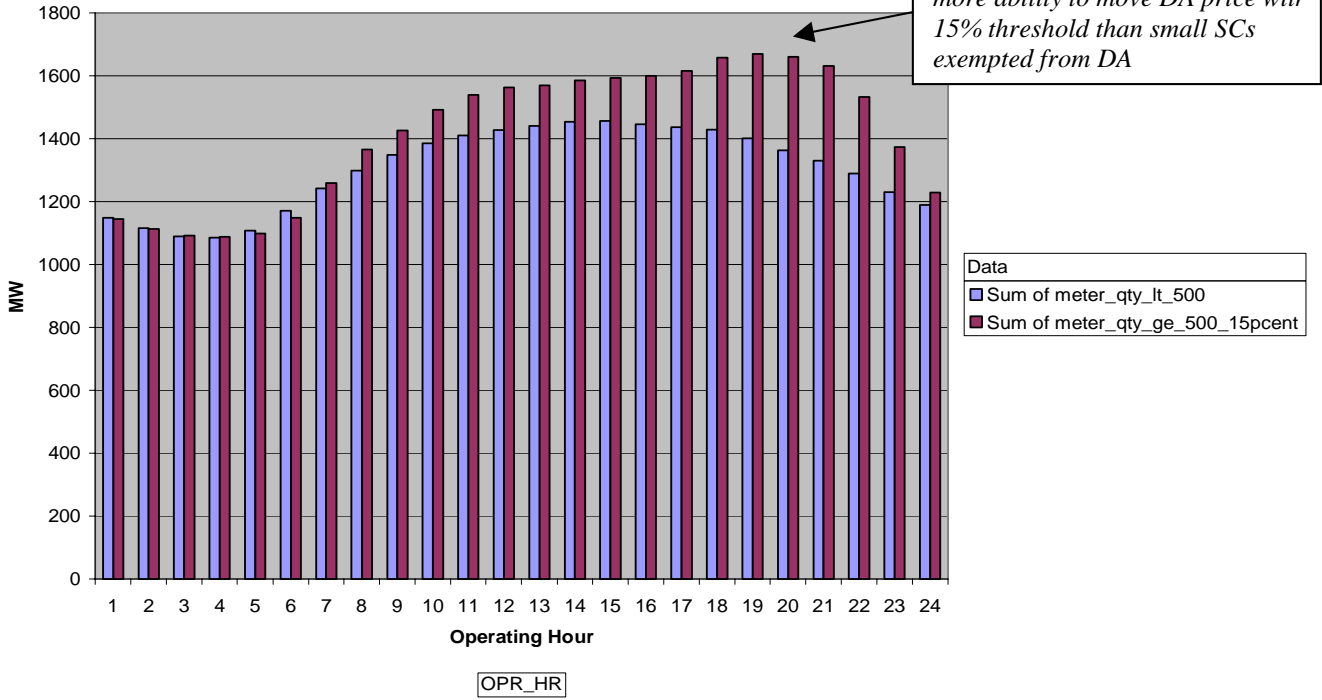
Finally, the slope of the supply curve tends to get steeper at higher load levels and load swings have a greater impact on price. This implies that underscheduling during higher demand levels would have a more significant impact on the Day-Ahead energy price. However, under higher demand levels it is also likely that the price of energy in the Real Time Market will be higher; thus resulting in a disincentive for LSEs to rely on the Real Time Market.

This graph provides an example of why under-scheduling smaller volumes of Demand in the DAM would not have a significant impact on the DA energy price. For this reason, the CAISO is recommending that the small load exemption be revised to be 500 MWs per hour per LAP. Assuming that underscheduling in the DAM market would result in price reductions in the DAM that are similar to price increases in the Real-Time Market, LSEs would effectively be limited to underscheduling less than half of their total load in the DAM for this strategy to be profitable. Therefore the effective small load exemption is well below the 500 MW level proposed in the interim scheduling charge. For example, an LSE with a 500 MW load could only underschedule 250 MW or less in the DAM in an attempt to profitably move prices lower in the DAM provided that there would be a similar increase in the Real-Time Market price.

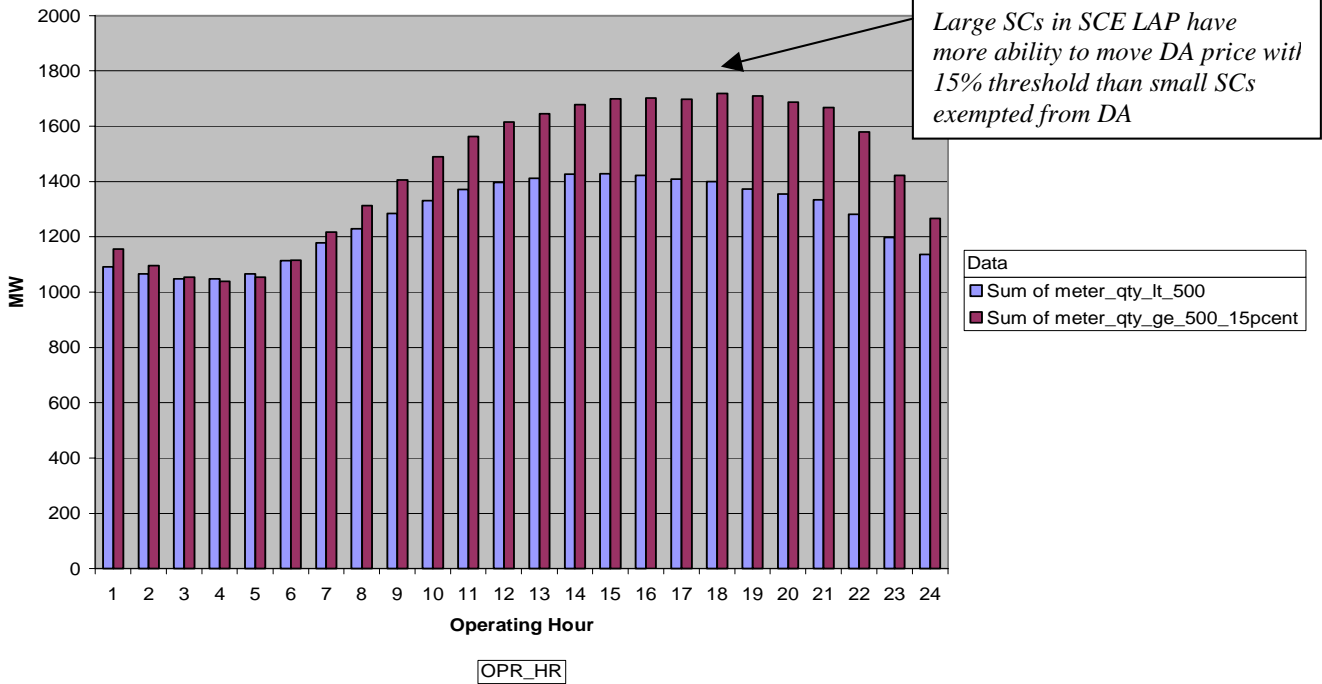
One stakeholder argued that providing the small load exemption could result in enabling the small LSEs to move DAM prices if all of the LSEs under the exemption were to concurrently underschedule which would result in transferring potentially thousands of MWs from the DAM to Real-Time Market. The CAISO does not find this to be a likely outcome because it would require wide spread collusion among the smaller LSEs that would be illegal under antitrust laws. Such behavior will be closely monitored. Even if all of the SCs in a particular LAP were to underschedule their entire load, which as described above would not be a profitable strategy, historical analysis of 2006 data shows that such behavior would almost always have a smaller impact on price than if the large SC (SCs greater than 500 MW) in a particular LAP were to underschedule 15 percent of their load requirements, as allowed by the interim scheduling requirement. Three charts are shown below that compare the aggregate hourly average load loads of SCs with less than 500 MW load to 15 percent of the load of SCs with greater than 500 MW of load. As shown in the charts, in the PG&E and SCE territories, 15 percent of the large SC load is greater during all hours than the sum of the small SC load. In the SDG&E territory, the sum of the small SC load is greater than the large SC load; however, the loads become comparable during the higher load hours. The CAISO finds that this further demonstrates that the 500 MW exemption level is an appropriate and fair break point for exempting small loads from the application of the Interim Scheduling Charge.

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**2006 Small LSE vs. Large LSE Load Analysis
PG&E Territory**

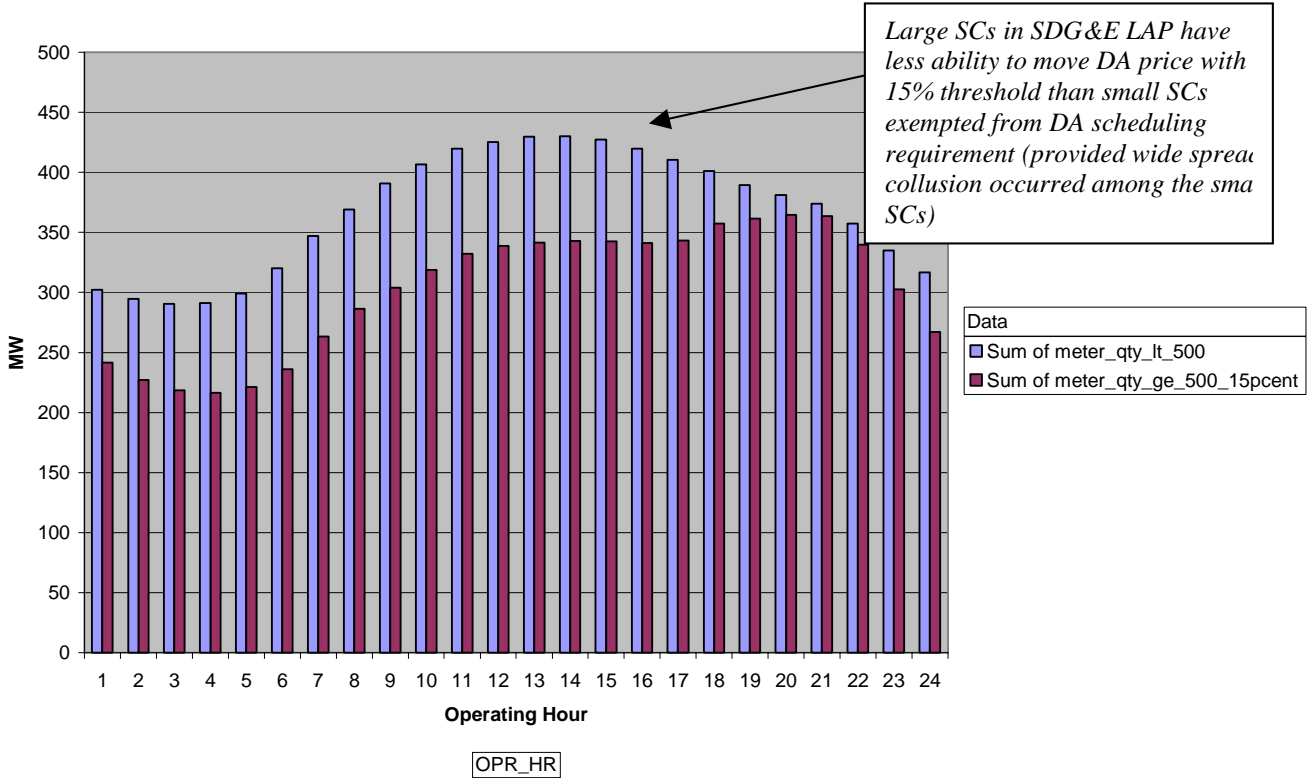


**2006 Small LSE vs. Large LSE Load Analysis
SCE Territory**



UDC_ID|SDGE

**2006 Small LSE vs. Large LSE Load Analysis
SDG&E Territory**



By increasing this exemption, the CAISO does not intend to discriminate against SCs with larger quantities of Demand that is scheduled in the DAM. The purpose of the interim measures, per the FERC Order, is to prevent under-scheduling that could potentially impact the price in the DAM. LSEs with Demand below this proposed exempted value of 500 MW per LAP would not have the ability to significantly impact the DAM price.