

CAISO Market Issues Call Action Items List

February 25, 2010 Conference Call

Issue No.	SC Name	SC Contact	Issue Description/Action Item	Date Opened	Status	Review and Action Item Comment
154	NRG	Taylor Roye	The issue I described on the call is that our unit will receive a dispatch in the DAM, the LMP will clear below our Bid price, and the MPM Report in CMRI is blank. When I submit an issue I'm told that there is a variance logged. The Variance I've been given is CQ7903. A few IMS Tickets you can look at are: 27122, 27293, 2953. The first IMS ticket was submitted 5/11/2009.	8/13/2009	Closed	12/14 update: The fix has been deployed to production on 12/14 and should be effective for the DAM run for trade date 12/16/09. 12/22 update: A new action item (#264) has been created for a similar issue that has been identified in the RT market MPM report. Also, action item #265 has been created for the request for reposting data for the MPM report.
258	Powerex	Lisa Hopkins	We have noticed lately that when prices change in OASIS (For example for TH_SP15), that the CAISO's tables where our system pulls OASIS updates from do not reflect the corrected prices. For this price correction, we'd like to ask the following: Which prices were corrected outside the 5 day price correction window? Was it only Trading Hub prices or were there other prices? What Trade dates were affected? What was the root cause of the problem? 12/10/09 update: The same problem still exists for Trade date Oct 14th TH_SP15. If you query OASIS using the "ALL Pnodes" method (it's a cached file - see attached spreadsheet) and it gives different prices than if you query using the "Select Pnodes" method (not a cached method). The OASIS cached files need to be refreshed for ALL the dates that the CAISO changed prices (which according to the Disconnected pnode prices document could be any or all days from August 1 to November). These price revisions should also be highlighted on the Market Issues Call. I don't think most people understood that the Trading Hub prices would be revised and these price revisions are not listed in the OASIS Publications and revisions log. They are not listed in any of the Price Corrections Reports. Could the CAISO please publish a document that indicates which dates had the Trading Hub prices affected by this disconnected pnode issue and also publish a document that indicates, when each of the cached files will be corrected (I assume that this will take some time to do). This issue should be highlighted and discussed on the Market Issues call, because the entire bilateral market (especially ICE) will need to be aware of the revision and determine as a whole whether they will resettle the bilateral deals (or not). It would be helpful to know the magnitude of the price revisions because I suspect it's not a huge \$ impact but it will be a significant amount of work for parties to resettle all of these transactions. 12/29 update: [Steven Kung of PG&E] Since 12/28/2009, I have been experiencing an issue where the OASIS API is occasionally returning empty files. The data is apparent in the user interface and can eventually be pulled via the API but it takes multiple attempts. This issue was previously reported and closed and explained and resolved due to an issue with the OASIS caching. Can CAISO please investigate? Sample of the files pulled within 1 minute of each other have been attached (URL used = "http://oasis.caiso.com/mrtu-oasis/GroupZip?resultformat=6&groupid=RTM_LMP_GRP&startdate=20091228&opr_hr=17").	12/9/2009	Pending	Which prices were corrected outside the 5 day price correction window? Nodes impacted by the Disconnected PNode effort. Was it only Trading Hub prices or were there other prices? No, there were others. What Trade dates were affected? See Market Notice on the Disconnected PNode effort. Changes were made from trade date 08/01/09 and onward. What was the root cause of the problem? The DAM LMP prices were last updated on 11/10/2009, associated with the Disconnected PNode effort. There was a problem with the OASIS caching mechanism. By design, OASIS is to create a new cached file upon any change to the underlying data. This did not occur in this case. The system of Powerex was picking up the cached result set which did not include the 11/10 price changes. The GUI users that query OASIS for single nodes received the updated prices. The caching mechanism has since been updated to include measures to prevent the above scenario from occurring in the future. 12/16 update: The OASIS cached files for the DAM LMP prices have been re-created for all Trading Dates from 08/01/2009 to 12/16/2009. Both the CSV and XML files have been re-created.. The ISO has identified the root-cause which led to this problem and has made the appropriate changes so that this does not occur in the future. This specific condition occurs when there are corrections being published for multiple days, as was the case for the Disconnected PNode effort. There is still one patch related to the OASIS caching mechanism that has not yet been deployed. This patch will correct issues related to the following intermittent cache file conditions. - The cached zip file contains no files within the zip. - The cached zip file contains malformed xml/csv files within the zip. - The cached zip file contains data that is not consistent with data presented on the OASIS GUI. This can occur for DAM, HASP or RTM. The above issues occur during times of peak load on the OASIS servers. The patch is expected to be deployed within the next week. 12/29 update: The empty files may be due to problems during peak load on OASIS as indicated above. Mondays are considered peak days, and Mondays following a holiday are that much heavier. The CAISO will continue to monitor this issue as it works on the long-term fix.
269	LDHEnergy	Xijian Sun	I got a question regarding Jan 5 2010's DA MCC for 4 locations listed at the end of this email: when "24074_LA FRESA_230_24065_HINSON _230_BR_1_1" is binding, following locations should have a positive MCC based on topology connection, which could be also be supported by historical DA MCC on Dec 28, 2009, when the exact same congestion was binding on Dec 28, 2009, the following locations' DA MCC goes positive, However on Jan 05, 2010, these locations' DA MCC goes negative when this "24074_LA FRESA_230_24065_HINSON _230_BR_1_1" is binding. Could you please help me bring this issue to the DA price group at the earliest convenience and keep us updated on this? Here are the locations I refer to : REDON5G_7_B1 REDON6G_7_B1 REDON7G_7_B1 REDON8G_7_B1 One possibility is that these locations might be dead pricing nodes, could you please let know CAISO's schedule on correcting price of dead pricing nodes? 01/07 update: What caused the different shift factors on those four points for congestion "24074 LA Fresa - 24065 Hinson"? I have reviewed the outages posted by CAISO, I don't see any outage happened on Jan 5, 2010 could cause such dramatic change on these shift factors.	1/5/2010	Pending	The reason why the pnode MCCs had different signs while the congestion shadow prices for flowgate "24074_LA FRESA_230_24065_HINSON _230_BR_1_1" are all positive is that different NA_CASES were used for 01/05/10 and 12/28/09. The shift factors used to calculate the MCCs were different for these dates. For 12/28/09, the shift factor is negative and for 01/05/10, the shift factor is positive. Please refer to part C of the CAISO Tariff Appendix C at http://www.caiso.com/2715/27159d2351d90.pdf for the calculation of the Marginal Cost of Congestion. 02/24 update: Under review.

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276	SCE	Wei Zhou	<p>Can you please provide the reasons for the congestion on Mead since last week?</p> <p>02/12 update: [Mark Tribett of Constellation] Can you please add some clarity to the response given to market issue action item 276 regarding the cause of the MEAD_ITC constraint. The response claims that the CAMINO-MEAD E. (MWD) line outage is contributing to the MEAD_ITC congestion.</p> <p>Handling of the CAMINO-MEAD E. (MWD) outage (SLUC 1073907) in the CRR FNM: <ul style="list-style-type: none"> The line was not open in the February CRR FNM V1 case. If the line was expected to be open for more than 10 days in February, why wasn't it open in the CRR model? </p> <p>CAMINO-MEAD E. (MWD) outage's (SLUC 1073907) affect on the MEAD_MSL interface: <ul style="list-style-type: none"> The CAMINO-MEAD E. line appears to be part of the MEAD_MSL interface definition. We understand that an outage on an interface line does not necessarily result in a derating of the interface, but are surprised to see no mention of the CAMINO-MEAD E. (MWD) outage in the OASIS Transmission Outage report for the MEAD_MSL interface. Could you please confirm that this line is part of the interface and explain why the outage was not reported in OASIS. If possible please also explain why the outage did not affect the interface's TTC. </p> <p>The lack of transparency around this CAMINO-MEAD E. (MWD) outage is a good example of our motivation for requesting a more clear, timely and complete presentation of transmission outage data. This is a case where market participants are left in confusion about whether or not a line is open and its impact on a related interface, and then the same outage is used as an explanation for a driver of one of the most frequent day ahead market constraints over the past 3 months.</p>	1/21/2010	Pending	<p>This is attributed to the outage of Mead-Camino E line.</p> <p>02/24 update: <ul style="list-style-type: none"> The CRR FNM modelling for a particular month requires that final outage information is received at least 30 days prior. At the time of preparing the February 2010 CRR model, the final outage list did not include the Camino - Mead E line. The line was expected to be back in service sometime in January when the outage list was finalized. The Camino - Mead E line is part of the MEAD_MSL. The reporting of the outage of this line in OASIS is under review. </p>
277	Customized Energy Solutions	Mike McGuffin	We request the CAISO to post data for the following: the date of the gas price index used for each trade date, and Potomac energy price component.	1/21/2010	Open	
282	DC Energy	Leo Hergenroeder	<p>Why did Laughlin_ITC bind in the DAM for 1/28/2010 when it had zero flows, a positive limit, and positive available transmission capacity (ATC) in every hour of the day according to OASIS. Furthermore, the transmission interface usage information on OASIS is identical for hours 6 and 7 for 1/28/2010, yet the constraint bound in hour 7 and not in hour 6.</p> <p>It is our understanding that this must either be a reporting error on OASIS, or that the constraint binding is invalid and should be eliminated through price correction.</p> <p>02/03 update: What was the cause of the variance? When did it begin? Was it announced to market participants? How many other interfaces have this same issue? Does it affect all interfaces where BG/ITC flows are reported on OASIS but the ITC is always the constraint that binds? Will the ISO be back-populating accurate data for this (and any other) interfaces with this issue?</p> <p>One other constraint where we have noted strange OASIS data relative to binding activity is Mead_ITC, does it have the same issue?</p> <p>02/11 update: Please provide a list of the impacted branch groups/ITCs and the time periods that these are impacted with the issue in OASIS.</p>	1/28/2010	Pending	<p>02/03 update: The CAISO is aware of this issue and has registered a defect with its IT department as the app is internally developed. The issue affects both DA and HASP. 02/08 update: This will be in the OASIS Functionality List at http://caiso.com/235f/235fcb556310.html. The fix is supposed to be deployed by 02/19.</p> <p>02/10 update: [for the 02/03 follow-up questions] - What was the cause of the variance? The scenario is when an ITC has no Import Schedules, but has Export Schedules that are greater than zero. This causes a calculation error in the view logic. This can occur in both the DAM and HASP. 02/11 update: This error condition is merely one of a subset of issues that the ISO is currently investigating regarding ATC calculations. - When did it begin? A defect was logged on December 9, 2009 regarding incorrect data for the Scheduled Net Energy from Imports/Exports in the following reports: Current Transmission Usage, Transmission Interface Usage - Both DAM and HASP, and Market ATC report. (Indirect impact, as if the Net Energy is wrong, the ATC calculation is not correct). Potentially, the impact can go as far back as TD 04/01/2009. - Was it announced to market participants? IMS tickets were opened for SC's that surfaced the issue (#33665 and # 32842). There was no general announcement for this issue. - How many other interfaces have this same issue? All ITC's could be impacted, as the logic applies to all ITC's. In reality, most ITC's have at least 1MW Import Schedule for each hour. There are some ITC's where it is more common to have zero MW of Import Schedules (LAUGHLIN_BG, MARBLE_BG) - Does it affect all interfaces where BG/ITC flows are reported on OASIS but the ITC is always the constraint that binds? No - Will the ISO be back-populating accurate data for this (and any other) interfaces with this issue? When the patch is deployed, all values going back to 4/1/2009 will be corrected. The impacted logic was in the view, so upon any request for any day, the result set will be correct. - One other constraint where we have noted strange OASIS data relative to binding activity is Mead_ITC, does it have the same issue? Yes. This will be corrected, too.</p>
283	PG&E	Anders Hur	Some nodes have inconsistent naming between the "TAC Area - Pnode Mapping" report and the "Pnode Listing" report. In the TAC Area report these nodes have underscores "_" while the Pnode Listings report use dashes "-".	2/1/2010	Pending	<p>The "Pnode Listing" report is correct while the "TAC Area - Pnode Mapping" is not correct. These two listings should be the same. The TAC area listing may contain logic to replace any dash with an underscore.</p> <p>A defect has been logged for this issue.</p>
285	PG&E	Steven Kung	<p>The HL heat rate for 2/10 is approximately 10,000 which is among the highest this year. There was almost no difference in PG&E area load or gen.</p> <p>A significant reduction in SCE area imports, increase in SCE area gen, and increases in SCE area exports were observed, as indicated in the attached file.</p> <p>As all germane differences appear to be in the SCE area, we would like to ask the Market Monitoring group to investigate whether this is possibly the result of the new minimum commitment nomograms in the IFM, as these are not visible to us as market participants.</p> <p>This is logged under IMS #33861.</p>	2/9/2010	To be closed	02/17 update: This issue has been referred to CAISO DMM for review.

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289	SCE	Wei Zhou	<p>In recent RTM, the SCE 60/40 constraint has been binding frequently and the magnitude can change dramatically from interval to interval. Take market day 2/16/2010 for an example.</p> <p>On 2/16/2010, the shadow price for this constraint changed from \$2.8 at HE8 Interval 10, to \$907 at HE8 Interval 11 and \$909 at HE8 Interval 12. Then it dropped from \$909 to \$0 at HE9 Interval 1 until HE9 Interval 7. At HE9 Interval 7, it jumped from \$0 to \$850. At HE9 Interval 10, the shadow price dropped again, from \$926 to \$31.</p> <p>The was also observed in other hours/days. Can you please provide some clarification and answer the following questions?</p> <p>(1) Is this constraint enforced in the scheduling run? If so, what's the shadow price and why its enforcement in the scheduling run couldn't have mitigated its impact in the pricing run? (2) For many other transmission constraints, we usually see the \$500 price parameter would trigger before reaching a higher level. In the example above, what caused the shadow price to jump from \$3 to \$907 instead of \$500? (3) The constraint was not binding for the entire HE08 in HASP and the 15-min market run. What caused the constraint binding in the 5-min run with \$900 shadow price? (4) At the \$900 shadow price level, would it be more economic to bring up more internal generators or/and deep into regulation reserves to solve the constraint?</p> <p>02/23 update: Whenever there is price spike due to SCE_PCT_IMP_BG, the price for SCE load can increase significantly. For the example of 2/16, the hourly average RT price for SCE DLAP is \$194 for Hour 8 and \$278 for Hour 9. Would these prices be high enough for the ISO to call on additional units to serve the load? Put in another word, would it be more economic for the ISO to take some actions to allow additional units to be committed in such situation?</p> <p>Would the ISO consider extreme prices due to the lossless shift factor issue to be subject to price correction?</p>	2/16/2010	To be closed	<p>(1) Yes the constraint is enforce the scheduling run. In many of the cases reviewed the scheduling shadow price is similar to the ultimate pricing run result. In general there is a solution in the scheduling run such that the constraint is not relaxed.</p> <p>(2) As described above, when the constraint becomes more binding, solutions that are affect changes in the losses as a result of use of lossless shift-factors becomes a solution and at these times the prices can rise above \$500. A description of the effect use of lossless shift-factors can be found at: http://www.caiso.com/23b4/23b4caaf479b0.pdf.</p> <p>(3) As noted above during the steep load pull hours intervals conditions from one interval to next can vary significantly as constraint become binding</p> <p>(4) To the extent we can commit resource in the RTUC process we will do so. Use of regulation reserves is driven by system-wide imbalance energy needs as determined by the EMS/AGC function and will not necessarily be responsive to a local constraint.</p> <p>Response to 02/23 follow-up questions: If we can anticipate the load variation in DAM-RUC or RTPD we can commit additional resources if the conditions are observed. By the time we are looking at dispatches within 5 minutes, commitment of additional resources is not an option in RTD.</p> <p>The use of Lossless Shift Factors is currently the tariff expectation and therefore would not generate a price correction.</p>
290	PGAE	Steven Kung	<p>When reviewing the weekly price correction report today, can CAISO also address an issue I opened (IMS#34060). The description of the issue was as follows:</p> <p>When reviewing the corrected prices for the DLAP_PGAE-APND, it has been observed that every 5 minute interval price for 02/05/2010 has been changes. In the weekly correction pricing report, there is no mention of any correction that would impact every RTM 5 min interval price for the PGE DLAP for the entire day. Can CAISO please investigate and advise? I've attached a spreadsheet showing the differences for the first 8 hour of 02/05/2010.</p>	2/18/2010	To be closed	<p>The disconnected pnode corrections would have resulted in these changes to every interval. Disconnected pnode corrections are run at T+5.</p> <p>The original intent for the disconnected PNode process was to find a substitute pricing location for CRRs that are being settled at the disconnected PNode location. Since CRR settlements are done on the Marginal Cost of Congestion component between two points retaining a zero creates an artificially high difference. Since CRRs are not awarded at individual load bus locations, but rather at the DLAP or SLAP in the allocation, the pricing of individual disconnected load bus locations was not specifically addressed due to how the DLAP and SLAP prices are calculated in the DAM and RTM. If a load bus is disconnected in the DAM or RTM that respective LDF is zeroed out and is not included in the calculation of the DLAP price. Since CRRs are settled on the DAM LMPs (MCC component) and a disconnected load bus PNode is assigned a zero LDF the assignment of any price will have no impact on the DLAP price.</p> <p>There is a situation where a load bus PNode is disconnected in the DAM and then comes back in-service partially through the day of the running of the RTM. As part of the initial implementation process if a PNode was disconnected in the DAM it was considered disconnected for the entire day of the RTM. In this case if the load bus PNode was disconnected for the first half of the day then the DLAP prices were not changed since the LDFs were zero but for the last half of the day the LDFs would be non-zero but the price of the electrically closest PNode would be substituted for the original load bus PNode. This created a small price difference equal to: (Original PNode LMP - Substituted PNode LMP) * LDF of Original PNode. We are currently getting ready to implement an enhancement to the process to isolate, by interval, real-time disconnected PNodes which will ensure that each interval only includes connected load bus PNodes and does not have any substituted load bus PNodes included in the DLAP calculation.</p>
291	PGAE	Anders Hur	<p>The following prices were posted for the RTM on 2/17, HE 18: INTERVAL01 INTERVAL02 INTERVAL03 INTERVAL04 INTERVAL05 INTERVAL06 INTERVAL07 37.96027 37.88468 37.88468 0.09554 0.09501 40.1264 41.14459</p> <p>At the same time, the following RTM SMin Load Forecast was posted: OPR_INTERVAL HE18 1 26061 2 26182 3 18979 4 18919 5 24425 6 27020 7 27292</p> <p>As you can see, the prices on interval 4 and 5 dropped to \$0.09, while all the prices around it were in the \$37-\$41 range. At the same time the 5 minute demand forecast dropped ~7KW for interval 3 and 4. Can you please explain why these price/demand forecasts dropped drastically?</p>	2/18/2010	To be closed	<p>There was a load forecast issue for those intervals. It was due to a server issue that resulted in data retrieval failures. Prices were corrected.</p>
292	PGAE	Anders Hur	<p>On HE22 on 2/17 in HASP, the following inerties had a scheduled net energy from imports/exports of 0:</p> <p>FCORNERS MEAD NOB PACI PALOVRDE SUMMIT</p> <p>We have seen a similar situation 7 times in 2010. Can you please explain why this is happening and if there are any plans to fix the problem?</p>	2/18/2010	To be closed	<p>For that hour, there was a HASP failure. As HASP did not run, there will be no HASP Net Energy for that hour on OASIS.</p>

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293	SCE	Wei Zhou	Please provide the reason for \$2500 price for SDGE_DLAP on 2/12 HE 11.	2/18/2010	To be closed	The price spike in the SDGE LAP was due to the congestion on SDGE_CFEIMP_BG. There were scheduled outages that derated the branch group.
294	Constellation Energy Commodities Group	Mark Tribett	<p>I have two questions for the Market Issues team.</p> <p>1. The SOPOINT_6_N001 node's day ahead MCC reaction to SCE_PCT_IMP_BG:</p> <p>a. The representation of this point in the FNM suggests a GSF that would cause injection at SOPOINT_6_N001 to increase the amount of imports into SCE, thus MCCs at SOUTHPOINT would be negative during SCE_PCT_IMP_BG constraints.</p> <p>b. It has been the case that the day ahead MCC at SOPOINT_6_N001 is either zero (2/17 HE 15:00) or positive (2/13 HE 12:00) during SCE_PCT_IMP_BG constraints. SCE_PCT_IMP_BG is the only binding constraint during the hours given in this example. Why is SOPOINT_6_N001 (a SPP price point) positive during the SCE_PCT_IMP_BG constraint?</p> <p>2. Some constraints have been posted with untraceable names. For instance the constraint "1051307-SOL3" during 12/7 - 12/11/2009, "1031184_NG1" on 10/31/2009, etc.</p> <p>c. Can the market be provided a constraint naming convention as well as an exception list of constraints whose names do not fit the convention?</p>	2/19/2010	To be closed	<p>It appears the SOPOINT bus is a disconnected bus and as a result the closest electrical bus connected to the system was a bus inside the SCE area.</p> <p>With regards to constraint definitions; we will be providing more definitions of the constraints when we implement the transmission constraint information release policy after approval by FERC. This policy was recently approved by BOG and is being prepared for filing.</p>
295	Dynergy	Michael Bailey	<p>Accurate accounting for losses is an important market consideration for stakeholders. Since the start of MRTU, TH_SP15 losses average roughly -\$1.58 on-peak while TH_NP15 losses average roughly -\$0.42. In other words, TH_SP losses have a magnitude, on average, that is greater than TH_NP by a factor of 3. The loss factors published in the recent "California Energy Demand 2010-2020 Adopted Forecast", however, imply that TH_NP15 losses ought to be slightly greater in magnitude than those in TH_SP15. This has also been my understanding based on other various CAISO reports and publications that I have read over the years. I have also noticed that the variance in TH_NP15 losses appears to be large relative to its average, whereas the variance in TH_SP15 losses is more well behaved. Market documents indicate that losses are based on a loss sensitivity calculation in the IFM. My understanding of the IFM is that the optimal power flow algorithm used is a decoupled linear DC based solution (active power). I understand that losses are traditionally determined by the reactive portion of a full power flow. Is there a reasonable explanation for this apparent discrepancy between NP and SP cleared losses? Are the loss sensitivities recalculated at each run of the IFM? How are the loss sensitivities used to calculate loss LMPs for a given IFM run? Are there any issues with voltage profiles, reactive mismatches, tolerance settings in the Full Network Model that may be influencing the loss sensitivity calculation? Are there system conditions where application of the loss sensitivities break down (e.g., light load). Are there performance metrics in place to track the fidelity of the loss calculation?</p>	2/22/2010	Open	
296	PG&E	Steven Kung	For the Thu Issues call, can CAISO please advise if the nomogram 1039602-AP-1-NG is defined in any operating procedure or if it is a temporary nomogram. If temporary, can CAISO advise what it is for and for how long? Note, this was also submitted as IMS issue #34145.	2/23/2010	To be closed	This nomogram was created for a planned outage.
297	SCE	Wei Zhou	Can you please look into why the LMP for DLAPs exceeded \$500 for intervals 8 - 11 during HE10, and remained high until after interval 7 HE9, in RT 2/23/10? Also, 1039602-AP-1-NG was binding for those intervals and other intervals with -\$500 shadow price. Can you please provide more details on this nomogram and the reason it's binding?	2/24/2010	Open	Under review
298	Edison Mission Marketing & Trading	Yan Sun	We noticed that there are discrepancies in the Mead_MSL limits posted in the "Transmission Outages" and "Transmission Interface Usage" on OASIS for 2/22 and 2/23/2010. Would you please investigate it?	2/24/2010	Open	Under review