

## Major Issues Table LCR Study Advisory Group (LSAG) November 6, ISO Offices in Folsom

<b>Issues: LSAG Will Address – Technical Related</b>		
<b>Issue</b>	<b>Result</b>	<b>Discussion</b>
1. Technically understand the methodology applied by the CAISO's in the 2007 LCR Study	Consensus achieved	Majority of LSAG members agree that the CAISO 2007 LCR results correctly reflect the methodology and criteria described in the 2007 LCR Study. Study assumptions, base cases, transmission configuration, and methodology were fixed through the CPUC's "Meet and Confer Workshop. CAISO has explained how it applied the NERC/WECC standards to the study results. Consensus has been reached that the CAISO is an independent party and has the required expertise and best available data in order to run these types of studies for future years.
2. Deliverability of Imports	Majority agreement achieved	Methodology used in the CAISO's 2007 LCR analysis is consistent with current Deliverability assessment. This methodology protects the deliverability (under normal and contingency category B and C5 only) of total import allocations on each branch group deemed deliverable through the "deliverability studies" to facilitate long-term contracts, and their import must be deliverable to the aggregate of load. The majority agreed that the same assumption should be used for the 2008 LCR studies.
3. Deliverability of Generators	Majority agreement achieved	Methodology used in the CAISO's 2007 LCR analysis is consistent with current Deliverability assessment. This methodology protects the deliverability (under normal and contingency category B and C5 only) of all existing generator deemed deliverable through the "deliverability studies" to facilitate long-term contracts, and their output must be deliverable to the aggregate of load. The majority agreed that the same assumption should be used for the 2008 LCR studies.
4. Clarifying NERC/WECC Category B and C Performance Standards	Consensus achieved	Commensurate with NERC/WECC standards, there is consensus that load cannot be dropped after a single contingency and that load can be dropped in a "planned and controlled" manner after the second contingency. If there is NO controlled solution (SPS or operating procedure with short term emergency ratings) of dropping load after the second contingency the CAISO is required to dispatch generation or drop load before the second contingency (effectively at a short time after a single contingency, through system readjustment) in an N-1-1 case and (under normal conditions) in an N-2 (common mode) case in order to make sure all system elements are within Applicable Ratings immediately following the second contingency. "System readjustment" is to be used after any single contingency and include operating procedures as well as generation reduction. Consensus has been reached in the interpretation of the performance standards and their application to the 2008 LCR studies.

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5. Clarify that LSAG is a technical group and not a “stakeholder” process	Done	The LSAG is intended to resolve, or at least narrow the scope of disagreements regarding, technical issues related to the conduct of LCR studies for the benefit of all stakeholders and other decision-makers (such as CAISO management and the CPUC). The LSAG is not intended to resolve broader policy issues. CAISO has scheduled a stakeholder meeting on December 6, 2006 in order to get stakeholder involvement on LCR issues and define next steps.
6. Clarify what the “next steps” beyond the LSAG will be	TBD	As part of the LSAG work, the CAISO intends to “map” LCR objectives through 2009. CAISO will seek guidance from LSAG on what information to “map”. This information will be pushed out to the stakeholders via Market Notice.
7. Transparency of Operating Procedures	Consensus achieved	The current process is: PTO proposes, CAISO validates and PTO/CAISO implements. The ISO will provide the operating procedures in an easy to interpret language that will allow parties to model its effect correctly. The ISO will provide starting base case – tuned for the local area before the generation is moved around. These steps will enable parties with modeling capability to validate operating procedures.
8. Definition of Load Pockets	Consensus achieved	The CAISO has developed a methodology for defining load pockets, based on historical patterns, fairly stable across years, which should facilitate long-term contracts for local resources. Consensus has been reached that the same assumption should be used for the 2008 LCR studies.
9. Appropriate 1 in 10 adverse weather load forecast	Consensus achieved	ISO will use the latest adopted load forecast. In any case the ISO will need the updated load forecast by January 2007. PTOs need time to spread a CEC system and zonal load forecast into a local (bus-bar) forecast before it can be released to the ISO for the 2008 LCR studies.
10. Option 1 or Option 2	ISO Tariff and NERC compliance	CAISO has an obligation to assure compliance with its Tariff as well as NERC standards. Requirements based on Option 2 go a long way into meeting this mandate given that the minimum required resources would be fully available at summer peak time. As Option 1 ignores Category C contingency it cannot be used to show compliance.
11. Zonal Requirements	TBD	Detailed discussion about the ISO proposed methodology or any new methodology has not been achieved mainly due to time constraints. There was acknowledgement that these needs exist and need to be addressed in the near future. CPUC intends to take this issue up in the next phase of RA discussions and efforts to frame this issue for CPUC are appropriate. For the 2008 LCR study, ISO will continue to publish the zonal requirement to meet the CPUC’s requirement based on ISO’s methodology.
12. Seasonal Studies	TBD	<ul style="list-style-type: none"> <li>• Units under Local RA obligation are assumed to need to recover 100% of their fixed costs through contracts in order to be available to serve peak load next summer. Should they be required to be available 100 % of the time? Is there a need, savings, risks and rewards in letting units be unavailable part of the year (other times than the approved ISO must offer waiver denial)?</li> <li>• Monthly or seasonal studies will also need to take into account generation and transmission maintenance, generation emission restrictions, and clearance scenarios. If those scenarios are not</li> </ul>

		<p>taken into account, the technical study will not be meaningful, and just reflect the impact of lower loads using the same methodology. This issue will be discussed in stakeholder meeting.</p> <ul style="list-style-type: none"> <li>Answers to three questions can resolve this issue: 1. How will the CAISO adjudicate the waivers from “must offer requirements”? , 2. How should ESPs trade capacity during load migration for local RA – maybe in the same way they trade system RA? and/or 3. How to prepare a proper transmission model to reflect frequent transmission and generation maintenance schedules in non-summer months?</li> </ul>
<b>Issues: LSAG Will Not Address – Policy Related</b>		
1. Load Forecast	TBD	The ISO will continue to use a 1 in 10 local load forecast as required per CAISO grid planning standards. This will give decision makers the opportunity to choose transmission projects, generation or demand side alternatives on the same footing level. Parties may revisit the 1 in 10 vs. 1 in 5 load forecast. Question: should this be addressed in 2008 Study?
2. Expansion of Local Area with New Transmission Infrastructure	TBD	New transmission infrastructure usually decreases the need in one area, for the same given boundary. When the new infrastructure changes the boundary of the local area then the project should be carefully considered. An example is that a project may not reduce the LCR requirement; however it could open the area up for increased competition (going from 100% of local generation to 80% of new local generation being needed). This is clearly in the benefit of the ratepayer; or else the project will most likely not get approved. Notwithstanding the above, the technical considerations of defining load pockets are appropriate for LSAG to address.
3. New methodology	Objective moved to 2008 timeframe	<ul style="list-style-type: none"> <li>Probabilistic methods - LOLP</li> <li>Discussion of alternative “methodologies” for determining LCR. Alternatives can be discussed across a longer term time period.</li> </ul>
4. How much load shedding is allowed?	Objective moved to 2008 timeframe	Discuss in Grid Planning Standard committee
5. Allocation of LCR to non-jurisdictional entities	TBD	ISO is proposing to use the same methodology as in 2007. (CEC performed allocation in 2007.)
6. Aggregation of LCR areas	TBD	Combine requirements for different Local Areas what is the best approach going forward. From all showings, it seems that it worked for 2007 purchases.