Written comments with CAISO reply
Submitted after the
October 11 Stakeholder Meeting regarding the
2009 Local Capacity Requirement (LCR)
Criteria and Methodology and the
2009 LCR Manual

Comments of Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc. and Mirant California on 2009 Local Capacity Reliability Requirements Study,

Dated October 19, 2007

I. Introduction

Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc. ("Constellation") and Mirant California ("Mirant") appreciates this opportunity to offer comments on the CAISO's 2009 Local Capacity Reliability Requirements Study Manual ("2009 LCR Study"), issued in October. Constellation and Mirant have throughout the proceedings at the California Public Utilities Commission ("CPUC"), California Energy Commission ("CEC") and the CAISO supported the notion that the CAISO is in the best position to independently and accurately assess local capacity needs. Constellation and Mirant appreciate the CAISO's efforts to ensure that the development of the local resource reliability requirements is conducted in an open and transparent process. This type of transparency is critical to the ongoing development of competitive wholesale and retail markets in California.

Constellation and Mirant have have two concerns with the 2009 LCR Study:

- The first stems from its decision to conduct the 2009 LCR Study to provide a Performance Criteria C service reliability level that specifically allows Participating Transmission Owners ("PTOs") to submit to the CAISO in March 2008 specific operating procedures that could reduce the level of the LCR. Those concerns are described more fully in the next section of these comments.

- The second is a concern about how the CEC load forecast that forms the basis of the 2009 LCR study is used by the PTOs in developing the base case.

II. Constellation and Mirant Comments

A. Operating Procedures

Constellation and Mirant remain concerned about the CAISO's selection of Performance Criteria C as the suitable level of service reliability. As stated by the CAISO, Performance Criteria C:

> is a service reliability level that represents that reflects generation capacity that is needed to readjust the system to prepare for the loss of a second transmission element (N-1-1) using generation capacity *after* considering all reasonable and feasible operating solutions (involving customer load interruption) developed and approved by the CAISO, in consultation with the PTOs.[1]

The CAISO justifies the selection of this service reliability level as follows:

> On a day-to-day basis the CAISO has traditionally operated the network based on the N-1-1 contingency, with operating solutions developed with the PTOs.[2]

Constellation's and Mirant's concerns fall into three areas:

1. **If the LCR is established based on an analysis of *transmission* constraints into the defined load pocket, why is it necessary to evaluate the impact of *transmission* operating procedures in the context of establishing of the LCR, and not in the context of more comprehensive transmission planning efforts?**

As noted in the 2009 LCR Study, the base case is intended to reflect the best information about the status of the transmission system for the delivery year. That base case is to be made available in December 2007. Constellation and Mirant request that the CAISO explain why *new* operating procedures are *not included in the base case*, but instead are subsequently submitted to

[1] See 2009 LCR Study, page 19.
[2] See 2009 LCR Study, page 20.

the CAISO by the PTOs in March 2008, and how it is verified that they can actually be operative for the delivery year. Presumably, the implementation of new operating procedures carries with it costs and transmission system impacts. It is not clear to Constellation and Mirant why the Local RAR process should be the venue for evaluating potential new operating procedures, or how the costs and system impacts of the operating procedures can be properly analyzed outside the larger transmission planning process. Constellation and Mirant request that the CAISO provide an explanation of why the evaluation of and potential inclusion of new operating procedures is not more appropriately carried out in the transmission planning process rather than the local capacity requirement evaluation process for resource adequacy.

CAISO response: The CAISO's evaluation of new operating procedures is not limited to the LCR Study process. New operating procedures are evaluated mainly through the transmission planning process and therefore are expected to be included in the development of LCR Study base cases. The local capacity requirement evaluation process constitutes another opportunity to propose and validate new operating procedures that are consistent with maintaining reliable operations of the system and minimizing local area resources. This additional opportunity is appropriate given the updated and potentially new information produced by the contingency analysis performed as part of the LCR Study.

As Constellation and Mirant acknowledge, the reliability concerns associated with local transmission constraints potentially can be addressed by various alternatives, including generation, demand response, and transmission solutions. Absent verified demand response resources, existing generation is presumed to be the feasible alternative. Indeed, there is little possibility of new generation or transmission assets being in place in time to participate in the yearly study process if not included in the base case assumptions. However, transmission

operating procedures can realistically participate as an alternative to generation. Operating procedures tend to be low to no cost solutions for certain problems that may appear at low generation scenarios and can be implemented in a short period of time. They usually refer to opening and/or closing of circuit breakers and/or switches in order to maximize imports from outside the local area by having a better distribution of flows between the remaining elements. Accordingly, the CAISO believes it is entirely appropriate to incorporate a review of potential operating procedures within the LCR Study process.

2. **Are the operating procedures that displace generating and demand side capacity resources dispatchable by the CAISO in a manner that is equivalent to the must offer obligation that is imposed on resource adequacy resources?**

Generating resources that are committed through RAR are subject to specific day ahead self schedule or must offer obligations under the Tariff that allow the CAISO to economically dispatch those units to meet system and local requirements. Demand resources that are committed through the RAR process are subject to performance obligations as well. It is not clear, however, how new operating procedures that displace dispatachable generating and demand resources provide this same level of reliability to the CAISO. Alternatively, it is not apparent how certain new operating procedures proposals that alter the operating capabilities of the transmission system impact pre-existing plans for transmission upgrades. Constellation and Mirant request that for any operating procedures that the CAISO considers, it provide a full description of how the deployment of the operating procedures impact day ahead dispatch, or whether it would alter the priority for other transmission projects.

CAISO response: Operating procedures do not displace RA resources. Rather, they allow for maintaining reliable system operation based on a higher proportion of resources located outside the local area. They are carefully validated by the CAISO to make sure they are effective

in all system conditions and that they do not cause any unintended reliability problem in the local area or in a different area of the system. The impact between new operating procedures and pre-existing (or future) plans for transmission upgrades are studied in the CAISO transmission expansion plan. The CAISO is committed to giving the actual description of any new operating procedures received through the LCR Study process to all stakeholders so they could replicate the studies.

3. **Will substituting Operating Procedures for generation and/or demand side capacity lead to increased CAISO Backstop procurement?**

As part of the Interim Capacity Procurement Mechanism initiative, the CAISO is seeking authority for backstop procurement authority when significant events occur within the system. Depending on the answers to the previous two questions about how operating procedures that have reduced the Local RAR interplay with CAISO dispatch and transmission planning, there may be an additional concern that reducing Local RAR due to the availability of operating procedures would increase the need for CAISO backstop procurement. Constellation and Mirant request that the CAISO explicitly address this concern.

CAISO response: New operating procedures will not result in higher backstop procurement by the CAISO. After a new operating procedure is validated and implemented by the CAISO in a local area that operating procedure will be used to study the relevant set of contingencies. This set of contingencies and the effectiveness of resources to address the contingencies will not change. Accordingly, there should be no reason to increase the CAISO backstop procurement in that local area for the same set of contingencies. This is not to be confused with other potential reasons the CAISO may do backstop procurement, such as "significant event" under the proposed Interim Capacity Procurement Mechanism, which has no relation to new operating procedures.

B. Use of CEC Load Forecasts

Slide 36 of the CAISO presentation from the October 11, 2007 stakeholder meeting indicates that the CEC load forecast will form the basis for the load inputs to the 2009 LCR Study. It states that the CEC is to "provide the CAISO and PTO the starting data before the end of November 2007 in order to assure base case development."[3] In CPUC docket R.06-12-013, the CPUC jurisdictional PTOs have taken significant liberties with the CEC forecast in preparing their long term procurement plans. Constellation and Mirant therefore request that the CAISO provide specific details if and when any aspect of the CEC load forecast is modified by it or the PTOs in preparing the 2009 LCR Study. This information is important to maintain transparency in the process and to understand some of the various disconnections that occur between forecasting assumptions and the operation of the RA Capacity market.

CAISO response: For areas like San Diego, where SDG&E's service territory corresponds to the local area, the CEC forecast may be used without modification. However, in PG&E's territory, the CEC load forecast (usually provided at the zonal or PG&E wide level) is translated by the PTO into "local area" peaks through a well defined (by PG&E) and agreed upon (by CAISO and CEC) methodology. This methodology is fully described in the PG&E transmission expansion plan and will be documented in the CAISO's study documentation. In SCE's territory, the CEC load forecast (usually provided at the SCE wide level) traditionally tracked SCE's forecast very closely. However, the most recent load forecast (applicable for year 2009) for SCE's service territory yielded a rather large difference between the two methods. As such, the CAISO has asked SCE to provide a methodology paper that will take the CEC load forecast (at the SCE wide level) and translate that into "local area" peaks, similar to PG&E's.

[3] See Slide 36 of the CAISO presentation at the October 11, 2007 stakeholder meeting.

Once provided, the methodology will be made public as part of the transmssion expansion planning process and included in the CAISO's study documentation.

III. Conclusion

Constellation and Mirant look forward to working with the CAISO and other stakeholders on this important issue.

Comments on the CAISO Draft Manual

2009 Local Capacity Technical Study

PG&E provides these additional comments in response to '2009 Local Capacity Technical Study'. We appreciate the efforts made by CAISO and the opportunity to make comments. We also appreciate the presentation made by Catalin Micsa on October 11, 2007.

Comments

1. In this manual the ISO has described an application to protect the system against the next single contingency, after a first contingency (first N-1), but before the second contingency (second N-1). The Draft 2009 LCR Manual refers to this application as Category C3 in the NERC/WECC Planning Standards. However, until the second N-1 occurs (after the system is adjusted), the outage is still a Category B contingency, and not a C contingency. Labeling a B Contingence, albeit after system adjustment, as a C contingency seems to have caused confusion. To avoid future confusion, PG&E recommends that we change to label and refer to the system condition after the first N-1 and system adjustment, but before the second N-1 as "Category B with System Adjustment" or similar.

CAISO response: The CAISO will try to eliminate the confusion by only publishing one column "LCR Need" based on the entire criteria published in the manual.

2. On Page 17, under the section in "Performance Level C5 – Double Circuit Tower Line and Two Line in the Same Right-of-Way Conditions", please add the following at the beginning of Item 5:

"*Make any accepted automatic or manual operating procedures that can* help reduce the flow on the most limiting element."

CAISO response: Comment included in the suggested section – page 18 item 3 as; “Use all known automatic or manual operating procedures that help reduce the flow on the most limiting element.”

3. On Page 18, under the section on “Protect against voltage collapse for Performance Level B followed by C5 Conditions”, add the following at the beginning of Item 5

“*Make any accepted automatic operating procedures that can* help reduce the flow on the most limiting element.”

CAISO response: Comment included in the suggested section – page 19 item 2 as; “Use all known automatic special protection schemes and/or operating procedures that help avoid voltage collapse.”

CONCLUSION

PG&E requests the CAISO staff consider the above comments.

LCR Study Methodology Comments

California Municipal Utilities Association ("CMUA")

Prepared for Discussion Purposes

October 19, 2007

CMUA submits these Preliminary Comments on the 2009 LCR Study Methodology and process.

As an initial matter, CMUA understands that fundamental reconsideration of the LCR methodology will not be considered in the 2009 process. CMUA does not support this conclusion. However, given that this is the CAISO's position, CMUA has limited its Preliminary Comments to the current study methodology.

Annual LCR versus Seasonal LCR

At both FERC and the CPUC, the issue of an Annual or Seasonal LCR has been discussed. CMUA supports that consideration of a seasonal LCR. CMUA understands the arguments raised by generators regarding the need to pay annual fixed costs irrespective of the duration of the requirement. CMUA also understands the CAISO's arguments regarding the possible increased maintenance coordination that may be required if a seasonal LCR is adopted. However, the only way to assess the efficacy of a seasonal LCR is to study it. CMUA is aware of no obstacle that stands in the way of examining what seasonal LCRs would be for the 2009 period. Further, CMUA notes that under the current annual LCR, many of its members face LCRs that for several months exceed their respective monthly peak loads. This is a not a rational result and points to the need to consider seasonal LCRs . CMUA raised this issue during the CPUC Energy Division scoping workshops and this issue was included as a matter for

consideration. CMUA urges the CAISO to consider seasonal LCRs as part of the 2009 LCR methodology.

CAISO response:

As discussed numerous times in the last two years, including most recently the October 11, 2007 stakeholder meeting, there are several obstacles that militate against a seasonal LCR or, at a minimum, stand in the way of transitioning to a seasonal LCR within the time period relevant to the 2009 LCR Study process:

a) There is no agreement on how granular this seasonal study should be (2 or 4 seasons, monthly peak-off peak etc.)

b) Consideration for scheduled outages (transmission and or generation) - how many elements should be out – this will likely result in a cap for transmission maintenance (and the need for altering the current first come first served policy reflected in the CAISO's FERC approved tariff). This will also require significant data collection and processing.

c) Resources are only proven deliverable (based on FERC approved tariff) at summer peak time. Without conducting an equally complex off-season deliverability study, transferring the on-peak conclusion to off-peak periods is inappropriate as unsupported. As a result, deliverability studies (with subsequent methodology changes) must be run for each season.

d) Trying to achieve the correct balance between granularity of local areas and study/ regulatory expectations

e) The current timelines do not allow the CAISO to develop such studies in time for the 2009 LCR study period.

The current RA program allows for local units (part of any LSEs portfolio) to be off-line if the request is approved by CAISO maintenance coordination group and it does not need to be replaced by other units within the local area. In contrast, a seasonal LCR would be identifying the minimum capacity that must be available for the particular season. This would create a higher dependence on each resource procured to meet the lower LCR. As a result, the ability to take maintenance outages for units procured to meet the local requirements would likely be eliminated.

Operational Solutions

While incremental progress has occurred on how Participating Transmission Owners offer operational solutions to remedy some locational issues, there is much progress to be made in understanding how operational solutions fit with the overall LCR methodology and LCRs for individual LSEs. It is not a reasonable outcome for LSEs to be expected to bear costs of LCR without a transparent consideration of operational solutions and their costs and benefits, before final LCR attributions are made to LSEs.

CAISO response: See CAISO response in page 4, 5 and 6 above. Operating solutions are usually low to no cost solutions to LSE and they decrease local area needs resulting in potential savings to LSEs not increased costs. Additionally, operating solutions that involve load shedding for Category C contingencies will be described in the stakeholder process. This will enable LSEs and the effected regulatory authorities to evaluate and comment the desirability of such impacts on their customers.

Integration with Transmission Planning

There has been recognition that transmission grid planning studies must be harmonized with the LCR study. But the latest round of documents reveals that study assumptions in the

transmission planning process may still differ from LCR Study assumptions. This leaves a gap between considering generation and transmission solutions to locational constraints. This should be easily resolved, and CMUA sees no rationale to support a continued gap in the 2009 LCR study methodology as compared to the grid planning studies.

CAISO response: The LCR study focuses on identifying the "minimum local area capacity" needed for the following year in order to reliably serve the load in that area. Thus, one form of LCR study addresses a timeframe in which physical changes to the transmission grid are impractical. However, the CAISO, as part of its transmission planning process includes a longer-term LCR study as well as Economic Planning Studies that are intended to both evaluate the growth in capacity requirements and considering economic alternatives to satisfying the capacity needs. Thus, on a going forward basis there should be a smaller "gap" between LCR studies and the overall transmission planning process to evaluate potential solutions to local constraints.

Gathering of Data and the Consideration of a Probabilistic Methodology

CMUA supports all reasonable steps to ensure expeditious progress toward a probabilistic methodology. CMUA is concerned that recent meeting cancellations reflect a back-burner priority for consideration of the probabilistic methodology. CMUA understands that this is not strictly a 2009 LCR methodology issue, but urges the CAISO to make progress on this study and to commence collection of data for use with the analytical tools at the earliest possible time.

CAISO response: The CAISO has commenced a series of stakeholder meetings (including vendor presentations) with an LOLP and/or probabilistic methodology focus.

COMMENTS OF THE ALLIANCE FOR RETAIL ENERGY MARKETS

ON THE CAISO's MANUAL ON THE

2009 LOCAL CAPACTIY RELIABILITY REQUIREMENTS STUDY

The Alliance for Retail Energy Markets[4] (AReM) appreciates the opportunity to provide comments on the CAISO's October 2007 draft "manual" for the 2009 Local Capacity Reliability Requirements (LCR) Study and the discussion conducted at the October 11, 2007 meeting on this topic.

1. **Manual** – AReM supports the concept of a "manual" to assist non-transmission planners in understanding the underpinnings of the LCR study and how the Applicable Reliability Criteria (ACR) is applied in the load pockets. We would expect this document to become user-friendlier over time, but the CAISO's October 2007 draft is a good first start.

CAISO response: The CAISO will work with stakeholders to improve the existing manual in order to make it user-friendlier. Comments/suggestions are welcomed.

2. **Seasonal LCR** – AReM has repeatedly raised its concerns with the single-peak based LCR. At the October 11 meeting, Catalin Micsa committed to evaluate the issues that need to be addressed to conduct such a study. Specifically, he agreed to begin a small working group on this topic or to include it on the agenda for LSAG. AReM appreciates that such a study would undoubtedly create more work for the CAISO's staff. However, the current one-time peak requirement may be inefficient and costly. In particular, AReM members have reported that some suppliers are unable to sell Local RA for the entire year. Allowing a seasonal LCR would

[4] AReM is a California non-profit mutual benefit corporation comprised of electric service providers that serve the majority of the state's direct access load. This filing represents the position of AReM, but not necessarily the view of any affiliates of its members with respect to any specific issue.

allow these generators to participate in the market, thereby adding liquidity and potentially lowering costs for consumers. AReM urges the CAISO to move rapidly forward with this effort, so that it could be implemented in time for 2009 compliance.

CAISO response: See CAISO response in page 12-13 above.

3. **RMR Timing** – Every year so far, the year-ahead resource adequacy (RA) compliance process has conflicted with the RMR schedule. Specifically, the allocations of RA credits for RMR resources to load-serving entities (LSEs) have come too late in the RA compliance process, frequently leading to over-procurement by LSEs. AReM suggests that we take this opportunity to fix the scheduling issues in time for the year-ahead 2009 RA compliance filings, and stands ready to work with the CAISO, CPUC and all stakeholders to resolve this issue.

CAISO response: The CAISO can not change the RMR timeline – included in FERC approved contractual arrangements. The CAISO is willing to work with stakeholders, the CPUC and other LRAs in order to best coordinate the entire RA and RMR processes.

4. **Probabilistic LCR** – AReM is encouraged by the CAISO's report that it is making initial efforts to evaluate vendor packages for conducting probabilistic assessments, but urges the CAISO to make this effort a higher priority. The CPUC has issued two decisions requesting such action and setting forth a timeline. AReM strongly supports the CPUC's direction. We also request that the CAISO re-schedule the cancelled stakeholder meeting for no later than the end of November 2007.

CAISO response: The CAISO has commenced a series of stakeholder meetings (including vendor presentations) with an LOLP and/or probabilistic methodology focus.

5. **New Load Pockets** – AReM has previously noted concerns that new load pockets add extensive procurement obligations and costs for consumers. The new Big Creek/Ventura load pocket and increased LA Basin LCRs raised the Local RA requirements in SCE's service territory by 22% from 2007 to 2008. A one-year increase of this magnitude is very difficult to plan for and hampers multi-year contracting. AReM therefore requests that the CAISO make a commitment to provide advance notice of new load pockets. In particular, AReM requests that the CAISO put in place a process to provide LSEs with two or more year's notice of potential new load pockets or, conversely, termination of existing load pockets. Such a process would encourage better procurement planning by LSEs.

CAISO response: As an initial matter, the CAISO anticipates that as all parties gain more experience with the LCR process, the chances of significant year-to-year changes will greatly diminish. Moreover, the CAISO currently provides a longer-term LCR study that evaluates a three and five year horizon as part of the transmission planning process.

Submitted October 19, 2007

Comments of Southern California Edison Company on CAISO Draft 2009 Local Capacity Reliability Requirements Study Manual

Southern California Edison ("SCE") appreciates the opportunity to provide comments on the October 2007 draft version of the CAISO Manual for the 2009 Local Capacity Reliability Requirements Study ("2009 LCR Manual"), following the presentation made by the CAISO at the 2009 Local Capacity Technical Study Criteria, Methodology and Assumptions Stakeholder Meeting held on October 11, 2007. Overall, SCE appreciates the efforts made by the CAISO to provide SCE and other interested parties the opportunity to discuss the 2009 LCR Manual in a stakeholder forum, and provide written comments in connection with the development of the 2009 LCR Manual.

The purpose of SCE's comments is to add and reinforce clarity and consistency to the 2009 LCR process and methodology. After arriving at a clear understanding of the LCR process and methodology with stakeholders, the CAISO should then apply the methodology across the grid and for each and every "local area" consistently. Accordingly, SCE requests that the CAISO clarify the following issues addressed either in the 2009 LCR Manual or in the stakeholder meeting presentation. SCE's comments track the organization of the draft 2009 LCR Manual, along with certain more narrow topics that were raised at the stakeholder meeting.

While SCE provides specific comments on the draft 2009 LCR Manual below, SCE would like to emphasize that the CAISO's schedule for the publication of the final 2009 LCR Study cannot fall beyond May 1, 2008. Load Serving Entities ("LSEs") need sufficient time to solicit, negotiate, and execute agreements to meet Local Resource Adequacy ("Local RA") requirements and RA compliance filing deadlines.

1. Study Objectives

As discussed at the stakeholder meeting, SCE has a concern regarding the following description of the study objectives as presented in the 2009 LCR Manual:

Similar to previous years, 2006, 2007 and 2008 LCR Studies, the purpose of the 2009 LCR Study is to identify specific areas within the CAISO Controlled Grid that have local reliability problems and to determine the minimum generation capacity (MW) that would be required to mitigate these local reliability problems.[5]

SCE believes that a key qualification missing from this statement is that the CAISO intends to determine minimum generation capacity required to meet local reliability criteria, while enforcing generation deliverability status and import allocations for all common mode contingencies (Category A, B, C5). As the manual discusses, the CAISO is including this deliverability requirement so that all generators will be allowed to count towards RA requirements.[6] It therefore appears that the enforcement of a deliverability requirement is designed to ensure system resource needs (System RA) first, and ensure local reliability second. SCE notes with some concern that the transmission requirement for generation deliverability may in fact be significantly different than (and detrimental to) reliability requirements for local area reliability.

SCE requests that CAISO include language identifying the deliverability qualification to the study objectives on page 4.

CAISO response: Comment included in the suggested section - page 4 as; "Similar to studies performed for 2006- 2008, the purpose of the 2009 Local Capacity Area Technical Study

[5] Draft 2009 LCR Manual, p. 4.
[6] *Id.*, at 9.

("Technical Study" or "LCR Study") is to identify specific areas within the CAISO Controlled Grid that have local reliability needs and to determine the minimum generation capacity (MW) that would be required to satisfy the local reliability criteria, while enforcing generation deliverability status and Maximum Import Capability for all common mode contingencies (Category A, B, C5)."

2. Generation Modeled (Base Case Assumptions)

The Draft 2009 LCR Manual states that for the CAISO's base case:

All existing generation resources shall be modeled (less announced retirements) and shall also include all new generation projects that will be on-line and commercial on or before June 1, 2009.[7]

SCE believes that all generation output (Pgen) assumptions in the power flow base cases need to be comprised of the most recent net qualifying capacity ("NQC") when determining the LCR requirements. Using out-of-date NQC values for resources risks LSEs being required to procure more resources (or potentially less) resources than are actually needed to maintain reliability within local areas.

SCE requests that the CAISO clarify that the most recent NQC values for generation output will be used in the base case assumptions.

CAISO response: Comment included in the suggested section - page 6 as; "All existing generation resources shall be modeled (less announced retirements) and shall also include all new generation projects that will be on-line and commercial on or before June 1, 2009. For new generation data should be available from the CEC web site:

[7] *Id.*, at 6.

http://www.energy.ca.gov/sitingcases/all_projects.html or through the CAISO interconnection process if no CEC license is required. Generation resources shall be dispatch up to the latest available net qualifying capacity or historical output values (if NQC not available) for purposes of the 2009 LCR Study."

3. Maximize Import Capability into the Local Area

The Draft 2009 LCR Manual describes the following methodology to maximize import capability into the local area:

Import capability into the load pocket shall be maximized, thus minimizing the generation required in the load pocket to meet applicable reliability requirements. In other words after the applicable contingencies have been taken the limiting element should be loaded at 100% of its applicable rating, or the voltage and/or reactive margin should be at their respective minimum allowable levels.[8]

As discussed at the stakeholder meeting, combining the treatment of thermal loading limits and voltage/reactive margin limits into a single sentence can lead to ambiguity as to the treatment of voltage and/or reactive margin limits in the LCR study process.

SCE requests that the CAISO modify the above passage to distinguish between the criteria and/or methodology used for voltage and reactive margin limits versus equipment loading limits.

CAISO response: Comment included in the suggested section - page 7 as; "Import capability into the load pocket shall be maximized, thus minimizing the generation required in the load pocket to meet applicable reliability requirements. In other words after the most

[8] *Id.*, at 7.

stringent contingencies have been taken, the limiting element should be loaded at 100% of its applicable rating for constraints driven by equipment loading limits. Also the voltage and/or reactive margin should be at their respective minimum allowable levels, after the most restrictive contingencies have been taken, for voltage and/or reactive margin driven constraints."

4. Maintaining Path Flows

The Draft 2009 LCR Manual provides that all established path ratings should be maintained below their maximum limits regardless of voltage level, as established by existing reliability criteria.[9] SCE agrees with the importance of maintaining established path limits. However, SCE also notes that there are numerous WECC-rated paths into Southern California area load pocket (including Paths 26, 27, 41,42, 43, 44, 45, 46, 49, 52, 58, 59, 60, 61, 62 64, and 65) (South of Lugo is not a WECC-rated path). The path rating of each of the WECC-rated paths is a non-simultaneous rating, *i.e.*, based on "favorable" dispatch conditions rather than dispatch conditions ordinarily used in the CAISO's LCR study process. SCE is concerned that, without proper qualifications, the current language in the Draft 2009 LCR Manual may lead to identification of LCR generation needed in order to maintain simultaneous path ratings.

SCE requests that CAISO define a set of justifiable and relevant paths for each local area that are deemed to be robust and significant for the local area for LCR Study purposes, and document such details in the 2009 LCR Manual or study reports.

CAISO response: During the LCR studies all path flows (WECC or not) need to be maintained below their rating. The CAISO does acknowledge that not all paths bound the local area constraints and the relevant paths will be fully described in the study report. For 2008 only the South of Lugo and South of Songs bound local area LCR requirements.

[9] *Id.*, at 8.

5. Units Owned or Under Long-Term Contracts with LSEs

In the Draft 2009 LCR Manual, the CAISO states that it will model "units owned or under long-term contracts with LSEs" to determine whether LSEs need to acquire additional generation to meet reliability needs within certain load pockets.[10] The CAISO should only consider the effectiveness of the generation resources, not contract status, for determining LCR requirements The CAISO should perform a technical study, rather than assert a role in the selection of generation unit preferences (*e.g.*, units-owned or long-term contracts) to assist stakeholders in meeting local area reliability needs. The appropriate economic choices for meeting the LCRs should be made through market mechanisms by way of procurement decisions by the LSEs.

SCE recommends that the CAISO should only consider the effectiveness of the generation resources, not contract status, for determining the LCR requirements.

CAISO response: From previous experience the LSEs are making showings with units they own or are under long-term contracts. Therefore, the CAISO is merely trying to be more accurate so that possible backstop procurement is avoided; possibly lowering the cost to ratepayers. Proceeding by means of pure effectiveness factors could result in a lower LCR requirement that can not be achieved with units currently owned or under long-term contract. In such circumstances, following validation of the actual LSE portfolios, the CAISO will have a much higher likelihood of requiring the use of a back-stop procurement mechanism to account for the relative effectiveness of the LSE portfolios.

6. Generation Dispatch Sequence and Effectiveness Factors

[10] *Id.*

SCE requests clarification on how the CAISO determines effectiveness factors, and specifically requests clarification in the 2009 LCR Manual that effectiveness factors are calculated based on post-contingency conditions.

SCE requests that the CAISO clarify the study methodology for local area incremental generation dispatch sequence, and combine its discussion of effectiveness factors with the generation dispatch process (*see* "Studies by Performance Level" beginning at page 15 in the Draft 2009 LCR Manual). Additionally, since generation dispatch is usually done in pairs (*i.e.* increment one generator, decrement another), SCE suggest that a statement should be included in the manual to identify the decrementing unit(s).

CAISO response: Effectiveness factors are done relative to the limiting equipment after applying the contingency(s). The CAISO methodology increases the effective unit and decreases (same amount) from all the other on-line units in the CAISO control area (except the designated system swing). The amount each one of the "other' units is decreased is based on their Pgen multiplied by the ratio of the total P increase versus total Pgen for all on-line units in the control area). First all QF/Nuclear/State/Federal units are turned on based on their effectiveness factor until the need is mitigated. If that is insufficient, then market units owned or under long-term contract with LSEs are turned on based on their effectiveness factors until the need is mitigated. If that is still insufficient, then all remaining market units are turned on based on their effectiveness factors until the problem is fixed.

Pages 16, 17, 18 and 19 in the 2009 LCR manual have been clarified by stating: "Turn on these units up to their NQC (most effective unit first within each category – after you finish one

category move to the most effective unit in the next category and so on) in the following order until ….:

a. QF/Nuclear/State/Federal units

b. Units under known existing long-term contracts with LSEs

c. Other market units without long-term contracts"

Page 15 regarding effectiveness factors has been clarified by stating: "Effectiveness factors are done relative to the limiting equipment after applying the contingency(s). CAISO methodology increases the effective unit and decreases (same amount) from all the other on-line units in the CAISO control area (except the designated system swing). The amount each one of the 'other' units is decreases is based on their Pgen multiplied by the ratio of the total P increase versus total Pgen for all on-line units in the control area)."

7. Contingency Criteria

Although the CAISO included the Contingency Category D (Extreme event – loss of two or more elements) in the Draft 2009 LCR Manual, SCE requests that the CAISO modify the 2009 LCR Study Manual to state that the LCR will be based on Category C criteria, allowing for operating solutions. Basing the LCR on Category C with operating solutions is consistent with the 2008 LCR Study, the CPUC's Decision 07-06-029, dated June 21, 2007, and the CAISO Tariff (MRTU). SCE also requests that the CAISO establish consistency between the LCR planning criteria and transmission expansion criteria under the new planning process. Such efforts will include, but not be limited to, generation dispatch and bulk system transfer levels.

SCE requests that the CAISO clarify in the LCR Study Manual that the LCR will be based on Category C criteria, allowing for operating solutions **and that LCR planning criteria**

will be applied in a manner consistent with transmission expansion criteria. In addition, the 2008 LCR study identified the most critical contingency for the LA Basin as the loss of one SONGS unit followed by the loss of the Devers-Palo Verde 500 kV line. In order to provide a greater understanding of the local reliability impact of the Devers-Palo Verde 500 kV outage, SCE requests the CAISO to include in the 2009 LCR report the local capacity need in the LA Basin based upon the next worst contingency in the area (while still using the same LCR criteria).

CAISO response: The LCR studies use the criteria listed on page 11, which is the same as the one filed at FERC. The methodology is explained in the latest manual published on the CAISO web site. The CAISO is aware that from a system planning perspective more information is welcomed. The CAISO attempts to provide additional information through the long-term LCR study. The "second worst contingency" identified by the LCR study will likely change in the future if the "most stringent LCR contingency" if fixed and may depend on how the first limiting constraint is fixed (because new transmission projects will change the configuration and impedance of the system). The CAISO is committed on working with PTOs and stakeholders in order to reduce LCR requirements.

8. Definition of Load Pockets

The methodology by which load pockets are defined continues to be a concern for SCE. In particular, SCE is not convinced that the load pocket definitions in SCE's service territory are appropriate for a local reliability study, or that the methodology applied for the study followed reasonable and appropriate processes.

SCE believes that local area boundary definitions should be based on a reasonable technical methodology and consistently documented and applied throughout the LCR study area,

including SCE's service territory. At the same time, the local areas that are adopted as part of SCE's Local RA requirements must have appropriate boundaries such as not to undermine existing Local RA procurement and to protect against the creation of undue generation market power within the local areas.

SCE recommends that the CAISO utilize the same local area boundaries for 2009 that were used in 2008. Based on SCE's unexpected LCR procurement patterns between 2007 and 2008, SCE requests that the CAISO provide further clarification on the definition of "Load Pocket Boundary." If the CAISO believes that revisions to the local area boundaries should be considered, the CAISO should provide sufficient time for stakeholder review and input, including an assessment of the potential impacts on LSE procurement activities.

CAISO response: The CAISO is willing to evaluate options for defining existing LCR area boundaries through stakeholder review and input. The CAISO believes the current methodology regarding boundaries is reasonable and will perform the 2009 LCR study with the existing definitions. Detailed discussions can be established at future stakeholder meetings.

9. "N-1, N-1" with Re-Dispatch

Based on the discussion during the stakeholder meeting, SCE recommends that the CAISO include expressly describe in the Draft 2009 LCR Manual the difference in re-dispatch of generators for the second outage in the "N-1, N-1" contingency. For example, at the stakeholder meeting the CAISO stated that for the second outage, deliverability is not enforced. However, this clarification is not currently included in the Draft 2009 LCR Manual. In addition, the CAISO has not addressed how path ratings will be maintained with respect to the second outage.

SCE requests that N-1, N-1 contingencies should be limited to within the boundaries of a local area. Contingencies outside the local area should be mitigated by "other" local area(s) generation.

CAISO response: The first comment has been included in the LCR manual at page 18, item 4 b) as "Decrease generation from units that aggravate the constraint (deliverability is not protected for this C3 category)." A path rating is treated just like any equipment rating (see footnote 3 on page 12 in the LCR Manual for purposes of single contingencies (including G-1L-1). If a path rating is exceeded after the second contingency in an N-1-1 situation, then the CAISO has 20-30 minutes to get the path back within it's rating – firm load curtailment can be used to meet this requirement and therefore no higher LCR requirement is needed. The CAISO believes it should be able and is required to maintain the reliability of the local area for any contingency (regardless where is situated relative to the boundaries of the area) if the constraint (limiting equipment) is in the local area and generating units are needed in the local area in order to maintain reliability.

10. Treatment of Pumps

SCE requests discussion in the final 2009 LCR Manual regarding how pump loads are treated, *e.g.,* as a firm load, a market participating load, or something else.

SCE recommends that the CAISO work directly with pump load owners now, to properly assess how these pumps will be operated, and therefore classified for the 2009 LCR Study.

CAISO response: Your comment has been included in the LCR manual in page 16 as "Pump model".

Submitted By:

Southern California Edison Company