

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF  
CALIFORNIA**

Order Instituting Rulemaking to Consider Refinements to  
and Further Development of the Commission's Resource  
Adequacy Requirements Program.

Rulemaking 05-12-013  
(Filed December 15, 2005)

**REPORT OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
CORPORATION SUMMARIZING MEET AND CONFER PROCESS TO  
DEVELOP STUDY INPUT ASSUMPTIONS**

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February 22, 2006

**REPORT OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
CORPORATION SUMMARIZING THE MEET AND CONFER PROCESS TO  
DEVELOP STUDY INPUT ASSUMPTIONS**

As ordered by Administrative Law Judge Wetzell on February 10, 2006, the California Independent System Operator Corporation (“CAISO”) hereby submits the agreed-upon input assumptions for the Local Capacity Technical Analysis for 2007 (“LCR Study”), which are the result of the meet and confer session held at the CAISO with interested parties on February 17, 2006.

**I. Background**

ALJ Wetzell advised all parties in this proceeding that due to the CAISO’s time constraints in performing a LCR Study for 2007 and in view of the Commission’s intention to adopt local resource adequacy requirements by June 2006, the time for determining LCR Study input assumptions, completing the study, and developing a record that considers the LCR Study outcomes is extremely limited. Therefore, ALJ Wetzell directed the CAISO, respondents, and other interested parties to meet and confer with the objective of identifying not more than three alternative sets of input assumptions the CAISO would incorporate into its LCR Study for 2007. ALJ Wetzell requested that the agreed-upon input assumptions be determined during a meet and confer session and that the parties file and serve notice of the agreed-upon input scenarios on or before February 22, 2006. As noted above, the meet and confer session was held on February 17, 2006.

**II. Introduction**

The CAISO appreciated the spirit of cooperation among those that participated in the meet and confer session and their willingness to consent to a set of input assumptions for purposes of this report that allows the CAISO to provide study results that comport with the Commission’s desired timeline. Input assumptions are included where a majority of participants favored the particular assumption. Where parties disagreed with the majority position, the CAISO requested that they provide written comments directly to the CAISO for incorporation into this report and, when appropriate, to the Commission during the workshop

process. Comments received by the CAISO are attached as the Addendum to this report.

Moreover, policy issues or areas of disagreement are described or highlighted for the Commission where appropriate. Finally, should the Commission desire to revise any of the LCR Study input assumptions or methodology, the CAISO has provided the Commission with an estimate of the time required to make the revision, if and where possible.

### **III. Discussion**

#### **A. Input Assumptions**

The first step the CAISO must take to produce an LCR Study is to create a base case. A single base case requires approximately two (2) weeks to build and is the amalgamation of transmission assets and generation resources necessary to meet the forecasted load. The answers to the following questions become the basis for the input assumptions to the base case:

1. How will the transmission system be configured?
2. What Generation will be modeled?
3. What load forecast will be used?

Modifying any one of these three inputs assumptions changes the base case, and thus requires another two (2) weeks of build time and up to six (6) additional weeks to decipher and test the base case results, overlay the contingency criteria and produce a final report of the results.

The following conclusions were drawn from the meet and confer session regarding input assumptions to be used in the 2007 LCR Study.

#### **1. Transmission System Configuration**

The CAISO will model the existing transmission system, including all projects operational on or before June 1, 2007 and all other feasible operational solutions brought forth by the PTOs and as agreed to by the CAISO. The CAISO requested that all PTOs provide any operational solutions by February 24, 2006, so that the timely development of the base case can commence. Operational solutions may include, for example, updates to equipment ratings in the CAISO's Transmission Register, special protection systems, manual load switching, remedial action schemes and, or operating procedures. The CAISO requests

that information and supporting detail about these operational solutions be provided to the CAISO by the PTOs so that the LCR Study results can reflect their contribution to meeting the LCR.

At the meet and confer session there was concern expressed by Calpine and, likely the supplier community generally, that there be visibility and transparency around the projects and operational solutions brought to the CAISO by the PTOs. The CAISO's desire is to make this process as transparent as is lawfully possible and could not opine on the issue of transparency further during the meet and confer session. Thus, this is an issue that needs to be addressed by the CAISO and this Commission in the production of the final LCR Study. In this regard, to the extent permissible, the CAISO will also indicate the reasons for rejecting a particular proposed operational solution, i.e., lack of feasibility.

## **2. Generation to be Modeled**

The CAISO will model all existing generation resources and will include all projects that are scheduled to be on-line and commercial on or before June 1, 2007. This date was agreed upon given the traditional uncertainty of on-line dates. Also, meeting this date permits procurement of local resources for the Commission's September 2006 annual showing for 2007. The CAISO will use the resource's reported qualifying capacity value to the extent known. If not, the CAISO will use the resource's Pmax value in the CAISO's masterfile.

## **3. Load Forecast Used**

A majority of parties at the meet and confer session agreed to use a 1-in-10 year summer peak load forecast for the 2007 LCR Study.

Certain parties at the meet and confer session disagreed with the use of a 1-in-10 load forecast (Carolyn Kehrein of Energy Users Forum, Aglet, and TURN). Parties that disagree with a 1-in-10 year load forecast generally believe it is overly conservative and sets a higher LCR and, therefore, cost relative to a lower forecast such as a 1-in-5 year load forecast.

Mike Jaske of the CEC reported at the workshop held on February 8-9, 2006 at the CPUC that the difference between a 1-in-5 and 1-in-10 load forecast was about 900 MWs across the CAISO Control Area. This figure is consistent with the written comments

provided by the CAISO to the CPUC in its local RAR filing that the difference between a 1-in-5 and 1-in-10 load forecast is approximately 1.5% in the respective load pockets.

The CAISO disagrees that a 1-in-5 load forecast is appropriate and believes a 1-in-10 year load forecast is necessary for the LCR Study and should be the standard going forward. The CAISO outlined for participants at the meet and confer session the following reasons why a 1-in-10 load forecast is appropriate:

- A one-in-ten year peak forecast has been used as an established standard practice among the PTOs for transmission planning studies within California for local areas for determining if and what reinforcement of the transmission system is needed.
- A one-in-ten year peak summer load forecast is superior to a one-in-five year forecast since it better accommodates the absence of load and temperature diversity in small load pockets.
- Use of a lower one-in-five year forecast does not provide a determination of local area generation resources that would be comparable to a transmission reinforcement project and, thus, would lead to a continuing gap in having sufficient generation resources available during real-time operation.
- Use of a lower forecast would put the generation and demand side at a disadvantage during the resource procurement process because transmission projects are routinely approved using a one-in-ten year load forecast for local areas.

Written comments received by the CAISO regarding the load forecast and other issues are included in the Addendum to this report.

## **B. LCR Study Methodology**

### **1. Maximize Import Capability**

The CAISO will conduct the LCR Study such that the import capability into the load pocket will be maximized while maintaining the deliverability of all existing units, thus minimizing the generation required in the load pocket to meet applicable reliability requirements.

### **2. QF/Nuclear/State/Federal Unit Status**

Regulatory Must-take and similarly situated units like QF/Nuclear/State/Federal resources will be modeled on-line at historical output values for purposes of the 2007 LCR Study.

### **3. Maintaining Path Flows**

Under WECC/NERC standards the CAISO must account for contingencies on the entire CAISO Controlled Grid and when such contingencies occur, the CAISO must maintain flow levels below all established path ratings. Therefore, for LCR Study purposes the CAISO will maintain path flows below all established path ratings into the load pockets, including the 500 kV. For clarification, given the existing transmission system configuration, the only 500 kV path that flows directly into a load pocket for consideration in the 2007 LCR Study is the South of Lugo transfer path flowing into the LA Basin.

#### **C. Performance Criteria**

Transmission system reliability studies evaluate system impacts due to the loss of one (“N-1”) or two (“N-1-1” as well as “N-2”) elements in the transmission system under peak generation and load conditions. For the 2007 LCR Study, the CAISO will evaluate the system based on NERC Performance Level B and Performance Level C contingency criterion as well as consideration of other contingencies for evaluation of path limit mitigation.

Specifically, the Performance Level C criteria requires sufficient generation for the system to absorb the loss of a generating unit or transmission facility, readjust to a normal operating state, and then suffer the loss of another transmission facility. This standard requires a MW amount within the load pocket sufficient to keep the system with emergency thermal limits and acceptable voltage limits, as well as avoiding voltage collapse and transient instability.

Performance Level B criteria incorporates the loss of a single element (“N-1”) that could include the loss of a single generator, a single transmission line or a single transformer bank. This standard requires enough generation so that the system avoids voltage collapse or transient instability as a result of these potential N-1 scenarios. The transmission system also should remain within emergency thermal limits and acceptable voltage limits. Following this N-1 contingency, the generation must be sufficient to allow for operators to bring the system

back to within acceptable (normal) operating range (voltage and loading) and appropriate operating transfer capability on the transmission paths.

As agreed-upon by the parties at the meet and confer session and to help evaluate the sensitivity of the contingency criteria as expressed by performance levels, the CAISO will publish the LCR based on Performance Level B and Performance Level C criterion, yielding the low and high range LCR scenarios. In addition, the CAISO will incorporate all projects operational on or before June 1, 2007 and all other feasible operational solutions brought forth by the PTOs and as agreed to by the CAISO. Such solutions that can reduce the need for procurement to meet the Performance Level C criteria will be incorporated into the LCR Study and the resulting LCR published for this third scenario. This will represent the medium-range LCR scenario.

#### **D. Defining the Load Pocket**

After much debate, a compromise was reached whereby the parties agreed that a load pocket should be defined based on the method used for the 2006 LCR Study, i.e. load pockets will be defined by fixed boundaries, not based on boundaries defined by the effectiveness factor of load or generation. However, the CAISO agreed that it could, with approval of the Commission, publish the effectiveness factors of the generating resources within the defined load pocket as well as the effectiveness factors of the generating resources residing outside the load pocket that meet a threshold effectiveness factor of not less than 5% or affect the flow on the limiting equipment by more than 5% of the equipment's applicable rating.

The agreed-upon proposed solution produces a practical hybrid approach for defining load pockets. By publishing the effectiveness factors of generating resources inside the fixed-boundary load pocket and the effectiveness factors of resources that lie outside the boundary, yet meet a threshold effectiveness for that load pocket, LSEs can pursue RA contracts with some durability and minimize potential backstop procurement by procuring the most effective units.

Basing the load pockets strictly on a fixed boundary or strictly on effectiveness factors has certain drawbacks that are not easily resolved and thus leads to this hybrid solution. For example, establishing the load pockets based strictly on effectiveness factors has the potential of creating an untenable shifting of the load pockets depending on what

contingency is applied. In other words, after the first N-1 contingency, there will be a portfolio of generators that are effective in resolving the constraints as well as a set of effective loads that form the “local area”. However, after the second N-1 contingency, there could be a different portfolio of generators that are effective in resolving the particular constraint as well as a new set of effective loads that form a different “local area”. In other words, the load pocket is dynamic based on how and what contingency is applied.

For the fixed boundary, the concern is that, as the system changes, the defined load pocket could grow less relevant and existing RA contracts in the load pocket no longer meet the reliability need. If this condition should develop, the CAISO or LSEs may be required to procure additional resources from more effective units to meet the reliability needs in the local area.

In conclusion, the hybrid approach appears to be the best solution in the immediate timeframe; however, further discussion by the Commission and participants will be required to address the following issues:

- If load pockets are defined by fixed boundaries, there must be rational triggers or criteria developed that allow load pocket boundaries to change as the CAISO Controlled Grid changes or is upgraded.
- Publication of effectiveness factors was objected to by certain participants and for various reasons, and originally objected to by Commission staff during workshops held in 2005. However, a majority of participants support their publication at this time and the CAISO historically has published effectiveness factors for RMR units. Some of the specific objections raised were:
  - Publishing effectiveness factors could create market power issues.
  - Effectiveness factors are not stable and can change hour-to-hour based on the grid configuration.
  - Effectiveness factors can create unnecessary product differentiation and complicate efforts to create standard capacity products and, ultimately, a capacity market.



## E. Schedule Impact if Revise Input Assumptions or Methodology

Proposed Revision to:	Schedule Impact	Reason:
<b>Input Assumptions:</b> <ul style="list-style-type: none"> <li>• <i>Transmission System Configuration</i></li> <li>• <i>Generation Modeled</i></li> <li>• <i>Load Forecast</i></li> </ul>	6 to 8 wks	Fundamentally alters the distribution of load, generation and, or transmission resources and thus alters the base case.
<b>Methodology:</b> <ul style="list-style-type: none"> <li>• <i>Maximize Import Capability</i></li> <li>• <i>QF/Nuclear/State/Federal Units</i></li> <li>• <i>Maintaining Path Flows</i></li> </ul>	2 to 3 wks	Limited time required as methodology would not fundamentally alter the base case.
<b>Performance Criteria</b> <ul style="list-style-type: none"> <li>• <i>Performance Levels A-D</i></li> <li>• <i>PTO Operational Solutions to Meet Performance Level C</i></li> </ul>	2 wks	Can overlay performance level criteria to any base case. Does not alter the base case.
<b>Load Pocket</b> <ul style="list-style-type: none"> <li>• <i>Based on Fixed Boundary</i></li> <li>• <i>Based on Effectiveness Factors</i></li> </ul>	2 wks	Alters the selection and dispatch of units in order to come up with the minimum requirement. Does not alter the base case.

## IV. Summary

The following table attempts to summarize the inputs to be incorporated into the CAISO's 2007 LCR Study as agreed-upon by the parties at the meet and confer session held at the CAISO on February 17, 2006. For expediency, certain parties agreed to the following input assumptions and methodology but may continue to dispute the LCR Study assumptions. Comments received by the CAISO and those that could be included in the addendum clearly indicate these areas of disagreement.


**Summary Table of Inputs and Methodology to be used in 2007 LCR Study:**

<b>Issue:</b>	<b>How Incorporated into the 2007 LCR Study:</b>
<b>Input Assumptions:</b>	
<ul style="list-style-type: none"> <li>• Transmission System Configuration</li> </ul>	<p>The existing transmission system will be modeled, including all projects operational on or before June 1, 2007 and all other feasible operational solutions brought forth by the PTOs and as agreed to by the CAISO.</p>
<ul style="list-style-type: none"> <li>• Generation Modeled</li> </ul>	<p>The existing generation resources will be modeled and will also include all projects that will be on-line and commercial on or before June 1, 2007</p>
<ul style="list-style-type: none"> <li>• Load Forecast</li> </ul>	<p>Will use a 1-in-10 year summer peak load forecast</p>
<b>Methodology:</b>	
<ul style="list-style-type: none"> <li>• Maximize Import Capability</li> </ul>	<p>Import capability into the load pocket will be maximized, thus minimizing the generation required in the load pocket to meet applicable reliability requirements.</p>
<ul style="list-style-type: none"> <li>• QF/Nuclear/State/Federal Units</li> </ul>	<p>Regulatory Must-take and similarly situated units like QF/Nuclear/State/Federal resources will be modeled on-line at historical output values for purposes of the 2007 LCR Study.</p>
<ul style="list-style-type: none"> <li>• Maintaining Path Flows</li> </ul>	<p>Will maintain path flows below all established path ratings into the load pockets, including the 500 kV. For clarification, given the existing transmission system configuration, the only 500 kV path that flows directly into a load pocket and will, therefore, be considered in the 2007 LCR Study is the South of Lugo transfer path flowing into the LA Basin.</p>
<b>Performance Criteria:</b>	
<ul style="list-style-type: none"> <li>• Performance Level B &amp; C, including incorporation of PTO operational solutions</li> </ul>	<p>Will publish the LCR based on Performance Level B and Performance Level C criterion, yielding the low and high range LCR scenarios. In addition, the CAISO will incorporate all new projects and other feasible operational solutions brought forth by the PTOs that can be operational on or before June 1, 2007. Such solutions that can reduce the need for procurement to meet the Performance Level C criteria will be incorporated into the LCR Study and the resulting LCR published for this third scenario. This will represent the medium-range LCR scenario.</p>
<b>Load Pocket:</b>	
<ul style="list-style-type: none"> <li>• Fixed Boundary, including publication of effectiveness factors</li> </ul>	<p>Will produce the 2007 LCR Study based on load pockets defined by a fixed boundary. The CAISO will publish the effectiveness factors of the generating resources within the defined load pocket as well as the effectiveness factors of the generating resources residing outside the load pocket that have an effectiveness factor of no less than 5% or affect the flow on the limiting equipment by more than 5% of the equipment's applicable rating.</p>

The CAISO submits this report to the Commission in compliance with the ruling given by ALJ Wetzell on February 10, 2006 to reflect the input assumptions the CAISO will use in conducting the 2007 LCR Study.

February 22, 2006

Respectfully Submitted:

By:   
Grant A. Rosenblum  
Attorney for  
California Independent System Operator

**Addendum**

*Comments Received by the CAISO Regarding the 2007 LCR Study Following the Meet  
and Confer Session Held on February 17, 2006*

## Comments from Energy Users Forum

-----Original Message-----

**From:** Kehrein, Carolyn

**Sent:** Saturday, February 18, 2006 2:57 PM

**To:** Goodin, John

**Cc:** Joseph Lyons; Coe, David; Simonsen, Kevin; Barkovich, Barbara; Florio, Mike; Lindh, Karen; johnrredding@earthlink.net

**Subject:** Response to your request for areas of disagreement

John,

On Friday afternoon at the meeting on Local Resource Adequacy Requirement determination scenarios, you asked that entities that disagree with any of the input assumptions let you know by Tuesday, 2/21.

Below is my response on behalf of EUF. IF CMTA can meet the quick turnaround requirement, you will have a response from them on Tuesday.

Respondent: Energy Users Forum

Area of disagreement: Load Forecast Assumption

As we noted at the meeting, (1) we can understand that the eight week timing constraint prevents the ISO from running a scenario that includes a 1 in 5 year peak forecast, (2) we think the artificial deadlines are preventing the development of a good framework, (3) **we think the outcome is more important than meeting the deadlines** and (4) we request that further exploration of the 1:5 forecast be explored on a separate track.

General Concern: Excessive Conservatism

As noted by Les of NCPA, the ISO is compounding multiple unlikely events creating extreme conservatism.

Although the ISO's proposed three scenarios may bookend the range of answers, we disagree that the middle case represents the middle ground or a prudent answer. It is too conservative and too expensive for the value provided.

As we noted, we support: "Reliability at the lowest reasonable cost," not the apparent mantra of "Reliability at any cost." We ask that you share this concern with upper management and the Board.

Attached is a close transcription of my main comment yesterday. I left off some of the opening remarks/stage setting.

Thank you for your efforts.

## *Comments made at the February 17, 2006 Workshop to determine the scenarios to be used to determine Local Resource Adequacy Requirements*

### **Carolyn Kehrein for Energy Users Forum and other customers:**

I represent the people that are impacted by reliability that are impacted by reliability and pay the bills. Reliability is important to us, but we want it at the lowest reasonable cost. To clarify, the lowest reasonable cost must be high enough for all necessary generators to recover their prudent costs and make a reasonable profit and to provide development in necessary infrastructure.

We understand that artificial regulatory deadlines have been mandated that are constraining the process. However, the cost is important and the outcomes will have an impact for years to come, thus we strongly request that this be done right, not fast and that the outcomes are transparent.

Based on the workshop last week, I don't think parties are certain that the rough impacts estimated by the ISO are correct. In the workshop we discussed the drivers and the size of the impacts, but I don't think people are comfortable with their accuracy. For instance, off the top of his head Mike Jaske of the CEC estimated that the difference between 1:5 and 1:10 load forecast was 900 MWs. Now the 900 MW estimate is being thrown around as fact without further investigation. We have no confidence in the estimated impacts of the drivers. The numbers did not add up.

We do support the ISO including an N-1 contingency scenario and not including the 1:5 load forecast in a scenario at this time. However, we would like further quantification of the 1:5 load forecast impact differential to continue on a separate track.

It is expensive to hit a moving target. There is a difference between operating and planning criteria. Not all issues have to be resolved through Resource Adequacy. The zonal issue falls into that camp. Zonal requirements should not be addressed here.

I refer you to the comments made by Sue Mara, Mike Florio and TURN, and Barbara Barkovich at the workshop last week.

Lastly, we have mentioned this before, but we are frustrated by the lack of focus on cost and it seems the ISO wants reliability at any cost.

**Comments from the California Manufacturers and Technology Association**



February 21, 2006

Mr. John Goodin  
California Independent System Operator  
151 Blue Ravine Road  
Folsom, CA 95630

Dear Mr. Goodin:

The California Manufacturers & Technology Association has participated actively in the RA proceeding at the California Public Utilities Commission and would like to share our concerns regarding the discussions at the workshops and meet and confer session held in February.

Our overarching concern is that the CAISO seems to be relying exclusively on RAR to deal with operating issues. We concur with the comments raised during the meet and confer that the CAISO possesses other tools to deal with operating issues besides RA and the requirements do not need to be developed to handle the most unlikely scenarios.

In that vein, we think that it would be more prudent to use a 1 in 5 year load forecast, rather than a 1 in 10 year load forecast to determine the local area RA requirements.

A scenario that is based on a 1 in 10 year load forecast and an N-1 reliability criteria is not the low side "bookend" of local area requirements and a scenario based on a 1 in 10 year and (N-1)-1 reliability criteria is not at the midpoint of the possible outcomes, nor is it the prudent solution. We ask that the CAISO refrain from making either claim in its response to the CPUC, or at a minimum, note that CMTA disagrees with those characterizations.

Given that contingencies are compounded, CMTA believes that the appropriate criteria to use to determine how much local resource needs to be provided by LSEs should be no greater than 1:5 load forecast and an N-1 reliability threshold.

Sincerely,



JOSEPH LYONS  
Policy Director – Energy

## Comments from TURN

John,

On behalf of TURN, I am offering the following comments for your consideration in preparing the CAISO's comments regarding its upcoming LAR technical study. Though I am providing these comments only to the CAISO, they may be shared with other parties as appropriate. These comments are not comprehensive, but address only those aspects of the proposed methodology that cause TURN and some other parties concern.

### Input Assumptions:

#### Generation Data:

I believe that the capacities of generating units used in the 9/23/05 LCR study differ from the "RAR-qualified" capacity figures the CAISO released two weeks ago. It is critical that "LAR-" and "RAR-"qualified capacity figures generally agree, subject to reasonable exceptions. At our meeting Friday, the CAISO said it would conform the LAR study's generator capacity data to RAR-qualified capacity figures.

#### Load Forecasts:

Like many parties, TURN is not convinced that a "1-in-10" load forecast is the most appropriate to use for setting LAR requirements. However, TURN appreciates the CAISO's concerns that preparing its study using both a "1-in-5" and "1-in-10" load forecasts would require several extra weeks of effort, and that the major changes in LAR may not be that sensitive to these different load assumptions. But I caution that this issue may re-emerge and prove quite troublesome, depending on the results of the next study.

### Criteria:

#### Performance Level Criteria:

TURN believes the CAISO's approach for analyzing LAR using an "N-1", an "N-2", and an intermediate approach using "N-2, with additional IOU PTO mitigation measures" is a good approach to framing the potential impacts on reliability and cost of different performance criteria.

TURN believes it critical that the IOU PTOs quickly provide sufficient documentation of any such mitigation measures to the CAISO so that the CAISO can both model these new programs and also have some comfort that such programs will actually be available by June 1, 2007. The CAISO should emphasize this need in their comments to the Commission.

### Local Area Definitions:

TURN believes it critical that, one way or another, generators that fall outside the boundaries



of a specific local area, but can contribute to meeting that local area's requirements, count as "LAR-qualified" capacity for that local area. The proposal discussed at the workshop, which would enable such units to count provided they met some minimum threshold of "effectiveness", seems reasonable. However, given that this proposal was discussed late in the day Friday, and may not have been consistently transcribed by all in attendance, you may want to send your version of the proposal out to parties for review today (Tuesday) to reduce the chance for confusion after you file the comments tomorrow.

Outputs:

I am attaching a spreadsheet file that describes some input and output data that I want the CAISO's next study to provide. These data will help illuminate the study results, and the LAR policy's potential market power implications in particular.

Thanks,

Kevin Woodruff

### **Comments from James Weil of Aglet**

“Aglet agrees with all of the input assumptions agreed to at the meeting with the exception of the use of the 1 in 10 standard. Aglet does not believe that a 1 in 10 standard is cost effective for California ratepayers.

“Aglet recommends that either a 1 in 5 standard be used or that two separate analyses be performed: one using a 1 in 5 standard and one using a 1 in 10 standard.”

## Comments from AReM

-----Original Message-----

From: Mara, Sue

Sent: Thu Feb 16 18:18:18 2006

To: Goodin, John

Subject: QUESTIONS FOR TOMORROW'S MEETING

John,

Thanks for giving me the opportunity to provide you with some questions and concerns for the meeting tomorrow. I'm sorry I can't be there in person. As I mentioned to you on the 14th, our biggest concerns are (1) ensuring that the local requirement is cost-effective (in other words, it's the least-cost alternative to meet the need) and both reasonable and attainable and (2) ensuring that the requirement makes sense for LSE planning obligations -- that they are not just operational requirements in planning clothing.

As to (1), we think the CPUC will ultimately determine whether the stated requirements are reasonable and attainable -- but the CAISO must play a role in evaluating the least-cost options to meet the requirements (e.g., Demand response, operational action, transmission upgrades).

As to (2), we believe that some of these requirements look and smell a lot more like capacity needed to solve operational issues. We don't believe those are appropriate obligations to impose on LSEs for planning purposes. Rather, those reflect the operational needs of the CAISO and should be solved by the CAISO offering to buy new services from generators, so that it can meet its operational needs. We do understand, however, that it's often difficult to draw a bright-line distinction.

What do we want to see in the study for 2007? We'd like some additional assessment or information provided that allows all the parties to better understand the load pocket issues. We'd like to know the following:

\* What is driving the large increase in MWs (over RMR) in PG&E's service area? Phil suggested that the answer is "hydro." That doesn't comfort me -- in fact, that means to me that the CAISO is discounting the hydro entirely simply because it's not included in the study, which looks solely at day ahead. I consider the "ignore hydro" approach to be totally unreasonable, so I'm hoping you come up with another reason for the discrepancy.

\* Assuming you can define what's driving the MW differences between RMR and LCR then I would request that you focus on the drivers and do some sensitivities -- this should also provide some guidance as to which areas have requirements that can be met by non-generation options.

- \* Along these same lines, as Molly Sterkel suggested at the workshop, the CAISO should identify the contingencies with the minimum and maximum outcomes and the value (i.e., benefit) of moving from one to the other.
- \* Although the CAISO staff has said repeatedly that 1 in 10 is necessary for local, you proposed 1 in 5 for zonal. You also used 1 in 5 for the RMR studies (which Grant said was "negotiated"). Given this, we still don't see a strong reason to go with the very conservative 1 in 10 for local. If your only reason is -- we don't have the 1 in 5 data for local -- then ask the PTOs how long it would take them to do it -- or whether they already have it available.
- \* If 500-kV path mitigation only applies for SP 15, say so, and don't make it a blanket requirement for all of CA. Then, we'd also like you to explain WHY it's a requirement only for SP15 and justify it.
- \* Why do some of the local areas have MWs or requirements that exceed the local generation? PG&E suggested that there must be some disconnect with the Grid Planning process. We would like these areas to be explained and the CAISO to make a realistic assessment for what should be required for a LSE obligation in those areas.
- \* As PG&E suggested, we would like the CAISO to publish the top 5 constraints for each local area.
- \* We would like to see some integration of transmission options with your study, even this year. We understand you can't fully integrate with the "Grid Planning Process" but we'd like to see some major progress to give comfort that the least-cost, best solution is at least on the table.

Regarding the boundaries of the local areas, it makes sense to conduct the study and then draw the boundaries based on the results of the study (rather than to set the boundaries first). We would like to see the areas as large as possible to encourage market liquidity. We may have to re-evaluate this position, however, if the CPUC decides to move toward a multi-year requirement for RAR -- then changing LRA boundaries could be a problem.

Finally, the CAISO has stated its intention to include a zonal assessment in this new LCR study. We oppose that. First, the CAISO's primary duty is to complete a useful LCR study. We are concerned that the zonal analysis will divert scarce resources. Second, there is no current zonal requirement, so it seems premature to study what one should be if there were one. Third, your proposed zonal methodology looks like an operational assessment to us -- not a methodology that should be used to develop a planning requirement. If the CAISO has issues with its current requirements for operating reserves, then it should correct those requirements under its tariff -- not attempt to impose a third new planning obligation on LSEs through the CPUC.

Thanks again, John. I hope the meeting goes well.

Sue Mara  
On Behalf of Alliance for Retail Energy Markets

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## **Comments from SDG&E**

-----Original Message-----

**From:** Strack, Jan

**Sent:** Thursday, February 16, 2006 12:28 PM

**To:** DeShazo, Gary; Ellard, Bill; Williams, Ben; CLT7@PGE.com; Tobias, Lawrence; Goodin, John; Micsa, Catalin; Charles.Vartanian@SCE.com; Cabrera, Alexander

**Cc:** Bentley, Bradley; Manuguid, Robin; Brown, Linda

**Subject:** SDG&E Will Support the Use of a 90/10 Load Forecast for Local Capacity Requirements

Senior SDG&E management has indicated that SDG&E supports the use of 90/10 loads for purposes of establishing local capacity requirements.

## Comments from SCE

-----Original Message-----

**From:** Cabrera, Alexander  
**Sent:** Wednesday, February 22, 2006 4:00 PM  
**To:** Goodin, John  
**Subject:** Re: Comments from SCE on LCR Study Assumptions

John,

SCE does not oppose that the 2007 LCR Study assumptions be based on a 1-in-10 load forecast and NERC performance level C with consideration for path limit mitigation. SCE supports the inclusion of viable grid alternatives provided by the PTO's in the LCR Study for the determination of a single LCR value (per local area) that the CAISO would recommend to the CPUC.

Regards  
Alex Cabrera

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## Comments from PG&E

-----Original Message-----

**From:** Thomas, Chifong (ET) [mailto:CLT7@pge.com]  
**Sent:** Wednesday, February 22, 2006 3:15 PM  
**To:** Goodin, John  
**Cc:** Haubenstein, Arthur; Kurz, Edward (Law)  
**Subject:** RE: Comments from PG&E on LCR Study Assumptions

John

Based on information from the “meet and confer” workshop held on February 17, 2006, held in response to R.05-12-013 ruling of ALJ Wetzell on February 10, 2006, PG&E agrees, for the purpose of determining the LCR for the Local Areas, that:

- It would be reasonable to use a Local Area load forecast representing 1 in 10 year adverse weather conditions for the Local Area.
- The ISO will assume that the system will be operated in the same way that it is operated today when conducting the LCR study, including response times and methodologies. If the ISO finds a transmission constraint, which drives the LCR study results, the impacted PTO will have the opportunity to provide viable solutions to address the transmission constraints. Viable solutions will include manual operations from the operator’s “tool box”. Such operation solutions will be among the many plans available to the operators and the operators will be free to use other available means in real time to best ensure system reliability.
- Market power would need to be addressed before implementation of these local reliability areas.
- Any LCR study results should be reviewed with PTOs before adopted for LSEs so that PTOs (and the ISO) could implement additional operational and RAS schemes to potentially reduce the cost of the requirement on ultimate ratepayers.
- ISO will provide the effectiveness factors for the generators for each Local Area (including generators that may be outside the Local Area) so that LSEs can increase their chances of procuring the most effective resources.

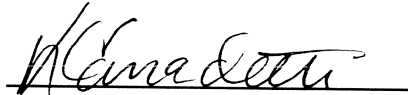
Thanks.  
Chifong Thomas  
PG&E



## CERTIFICATE OF SERVICE

I hereby certify that I have served, by electronic and United States mail, Report of The California Independent System Operator Corporation Summarizing Meet and Confer Process to Develop Study Input Assumption in Docket No. R.05-12-013.

Executed on February 22, 2006, at Folsom, California.

A handwritten signature in cursive script, appearing to read "K. Corradetti", is written over a solid horizontal line.

Kathryn R. Corradetti  
An Employee of the California  
Independent System Operator

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