

Written comments with CAISO reply Submitted after the March 9 Stakeholder Meeting regarding the 2012 Local Capacity Requirement (LCR) Results

SCE Comments on the Draft Results of the CAISO's 2012 Local Capacity Technical Study

SCE appreciates the ability to participate in the CAISO's stakeholder process to determine the Local Area Resource Requirements for the 2012 Planning period. We offer the following comments on the ISO's draft results as presented/discussed during the ISO's March 9 workshop. We are hoping that the CAISO can provide some clarification during the next (April 14) workshop/teleconference as well as some documentation within the Final LCR Report.

Interdependence of LCR between LA Basin and San Diego Local Areas

During the March 9 workshop, the CAISO discussed an interdependency between the LCR for the LA Basin Local Area and the LCR for the San Diego Local Area. The CAISO also mentioned that the LCR calculation methodology to determine these respective LCR values includes a three-step process. SCE requests the CAISO to include an expanded description of this interdependence and three-step calculation process within the Final LCR Report. Such a description will help provide clarification regarding how long this interdependency has existed and its potential significance.

ISO response: The purpose of the LCR study is to determine minimum resource needs in the local area in order to meet the established criteria. In the past, there was only a single interdependence in the study: both LA Basin and San Diego resources were effective in mitigating the South of Lugo constraint (the most limiting element that drives the LA Basin requirement). On a load-share ratio, the San Diego LCR requirement (where units in LA Basin are not effective) was higher than the LA Basin LCR requirement. The study followed a two-step process: identify San Diego LCR requirements first, then assume that these resources are available to mitigate South of Lugo as well, with the LA Basin resources available to meet any remaining requirements. In order to study the period after Sunrise becomes operational (due to its 1,000 MW path rating), this process is a three-step process. First the Greater San Diego/Imperial Valley area requirements are calculated (since LA Basin resources are not effective in mitigating this need). Second, the LA Basin LCR requirements are calculated. Third, the minimum LA Basin resources needed are modeled and the San Diego needs re-examined. Using this three-step process, the San Diego LCR needs are slightly higher than the Greater San Diego/Imperial Valley requirements due to this cyclical iteration.

Once Through Cooling

SCE requests the CAISO to include a description within the Final LCR Report that outlines to what extent, if any, aspects of CA's Water Board's Once Through Cooling (OTC) policy were reflected in the LCR analysis.

ISO response: In performing the 2012 LCR study, the ISO did not take into account the California Water Board's Once Through Cooling (OTC) policy because 1) the Humboldt, Potrero, and South Bay power plants have already been retired and that's reflected in the 2012 study, and 2) the policy does not impact any of the remaining "operational" power plants in 2012.

PG&E's Comments on the CAISO 2012 Draft Local Capacity Requirement Results

Introduction

PG&E appreciates the opportunity to comment on the CAISO's Draft 2012 Local Capacity Requirement (LCR) study results presented on March 9, 2011. PG&E recognizes the substantial efforts and commends the CAISO Staff for its work in performing this study. Generally, PG&E agrees with the draft study results presented during the stakeholder meeting.

However, PG&E disagrees with CAISO's draft findings that propose the creation of new sub-areas within the Greater Bay Area and Kern LCR areas. PG&E requests the CAISO remove these two new LCR areas from the 2012 LCR study until the CAISO can better support their inclusion as discussed below.

Comments

 The annual LCR study should produce logical and predictable results from year to year. Study results that appear inconsistent with previous years' results, or that are not accompanied with a clear explanation of what is driving changes relative to previous years' results, hamper the ability of LSEs to make effective long-term commitments to support local reliability. More importantly, unpredictable results from year to year may result in an excessive level of procurement and associated costs. The benefits of having any additional areas should be identified, so that they can be compared to the potential costs. The creation of additional sub-areas can lead to higher costs for both supply side and demand side resources. The creation of the new Contra Costa sub-area within the Greater Bay Area is a specific example of an unpredicted change or finding, something that could make market participants question the ongoing integrity of the study results on a year to year basis. This is particularly the case here, where an initial LCR need of 996 MW is identified. The CAISO's presentation at the stakeholder meeting, points to the increased Delta Pump load as the main driver for creating this sub-area. Increased pump load yielding a few MWs of increased capacity being required likely would be considered normal, but a new sub-area with a requirement of almost 1,000 MW is not expected. Changes of this magnitude must be accompanied by clear explanations.

The CAISO should provide more information to stakeholders to identify major changes to the input assumptions used by the LCR study, as those inputs clearly have a substantial effect on the outcomes, and thus on the resulting requirements. In creating the new Contra Costa sub-area, assumptions were made outside of the stakeholder process and without stakeholder input or notification. First, the CAISO did not seek stakeholder input on the Delta Pump load model assumptions. Second, the CAISO created this new sub-area without giving any indication to stakeholders that this new requirement was being considered; none of the previous LCR studies (year ahead and long-term) have identified this as a constrained area requiring creation of a new LCR. In fact, the pump load noted as the reason for the creation of the new pocket has been in existence for years.

ISO response: The LCR study determines the minimum resources needed in order to meet established criteria. For the large Bay Area, there are hundreds of combinations of contingencies that have limitations and could be modeled. The ISO usually includes in the study only the worst one or two contingencies because if adequate resources are available to mitigate these worst contingencies, the remaining lesser contingencies will be mitigated as well.

In the past, the study modeled only 157 MW of pumps for the Contra Costa sub-area. In the draft 2012 LCR study, there are 317 MW, which is an increase of 160 MW. As

5

shown by the effectiveness factor table published in the draft 2012 LCR Report, the pumps are 3-4 times more effective on the limiting constraint than the other resources. As such, of the additional 160 MW increases the minimum resources needed by about 600 MW. The remaining 400 MW (up to the 996 MW total for this sub-area) of capacity needed may also have been needed in the previous years; however, Contra Costa was not treated as a sub-area in prior studies because the Bay Area overall load and LCR requirements were higher and drove the minimum amount required in order to satisfy the overall Greater Bay Area LCR requirement. In addition, the new Contra Costa sub-area has not really increased the Bay Area LCR requirements, but rather more specifically contributed to determining the correct mix of resources needed in order to meet Bay Area overall requirements. Based on the final 2012 LCR study, the most stringent N-1-1 contingency will push the most limiting element to over 99% of rating based on the resources required by the aggregate of all sub-areas within the Bay Area.

Pump Load Modeling

The Existing Transmission Contract (ETC) between PG&E and the California Department of Water Resources (CDWR) provides that the total Delta Pumps load will not exceed 275 MW at any given time and that only 157 MW is considered "firm" service. This means that in the event of transmission constraints in the area, the Delta Pumps can be curtailed down to 157 MW in order to help relieve the transmission concerns. The reduction in pump load can occur at any time when the system is deemed constrained, even with all transmission facilities in-service (N-0) and in anticipation of the next contingency. Furthermore, PG&E has an existing operating procedure "O-38" which provides the procedures to reduce the Delta Pump load to mitigate the potential overload on the Delta Switching Yard-Tesla 230 kV Line.

Consequently PG&E recommends that at a maximum, the Delta Pump load should be modeled at 157 MW for this LCR study.

ISO response: The ISO's LCR study is intended to provide the same level of reliability for all loads in the ISO control area based on the appropriate CEC load forecast (including pumps and demand response programs). The CEC has revised its forecast of pumping load at Delta and South Bay to 264 MW. The ISO used the most up to date CEC forecast in its study, but will not establish LCR needs below the CDWR's firm transmission rights.

New LCR Sub-Areas

The CAISO's studies (for the current year, and future years) should include reasoned, understandable forecasts of local requirements. PG&E understands that for future studies, adjustments to current studies will need to be made as the operating horizon draws nearer. Nonetheless, long-term studies and projections are immensely valuable for the long-term investment decisions that must be made to ensure local reliability in the longer term future. Not capturing major changes, such as a creation of a new LCR sub-area, in the longer term studies does not provide confidence in the analytic framework being used for the studies. As a result, LSEs may be reluctant to place faith in either the short or longer-term numbers.

PG&E commends the CAISO for its December 30th forecast of local requirements for the year 2013 and 2015, but would like to point out that these forecasts do not present or indicate the possible creation of the new LCR sub-areas in the Greater Bay Area (Contra Costa sub-area) nor in Kern (West park sub-area).

PG&E recommends that these longer-term (3 and 5 year) LCR studies be used to identify, in advance, the time frame for the creation of new LCR areas or sub-areas as well as of any potential changes in load pocket boundaries definitions. Identifying the potential new areas or load boundary changes in the long term LCR studies would provide added certainty and stability of the results. In turn, this will still promote more effective long-term contracts by LSEs while accurately identifying the appropriate system constraints and effectiveness of generation in an area during the technical analysis.

7

Thus, PG&E requests the CAISO to clearly define, through a stakeholder process, how the CAISO will create or identify new sub-pockets. PG&E requests that this description be included in the annual LCR manual. The benefits of having any additional areas should be identified, so that they can be compared to the potential costs. The "2012 Local Capacity Area Technical Study – Final Manual" discusses load pocket boundary changes, but it does not address how the CAISO identifies new sub-areas.

- ISO response: The ISO understands these concerns and will endeavor to incorporate such changes in the long-term LCR studies, however as explained above at times changes may be warranted or induced in the short term LCR study. Once new LCR concerns are found, regardless of timing, the ISO has to take action and inform stakeholders about them for transparency reasons.
- Publishing the list of generation units along with their local sub-area designation --PG&E understands that the CAISO typically publishes information on LCR generation
 units along with their sub-area designation in the annual LCR report. Unfortunately,
 such information is not currently available in a format that would help LSEs assess
 local sub-area procurement.

PG&E requests the CAISO to make available the LCR generation units information, including sub-area designation, in Microsoft Excel format as a supplement to the LCR generation information to stakeholders.

ISO response: The ISO will consider this suggestion.

Conclusion

PG&E appreciates the opportunity to provide comments.

<u>SDG&E's COMMENTS ON THE CAISO'S</u> 2012 DRAFT LCR STUDY RESULTS STAKEHOLDER MEETING

SDG&E appreciates the opportunity to comment on presentations delivered at the CAISO's March 9, 2011 stakeholder meeting on the 2012 Draft Local Capacity Requirements Study Results. SDG&E's comments are designed to gain a better understanding of the relationship between Local Capacity Requirement (LCR) determinations for the LA Basin and the San Diego local area. Specifically, SDG&E requests that the CAISO provide a rationale and detailed description of its methodology in modeling the interdependent LCR needs of the San Diego and LA Basin local areas, as the approach described during the March 9, 2011 LCT Study Stakeholder Meeting appears to be inconsistent with the approach described in the 2012 Final LCR Manual.

SDG&E also requests that the CAISO release model inputs to market participants so they can collaborate with the CAISO to ensure, pursuant to Section 40.3.1, that the Local Capacity Technical Study is performed in accordance with CAISO Tariff Section 40.3. SDG&E's questions/comments are outlined below.

 In determining the San Diego area LCR amount, it appears the CAISO assumes that the output of generators located in the LA Basin area will be equal to that area's LCR amount even though additional generating capacity is available in the LA Basin area. As discussed below, this methodology appears inconsistent with the 2012 Final LCR Manual.

According to the CAISO's presentation, the LA Basin in 2012 will have a LCR of 10,293 MW and there is 12,309 MW of NQC available to satisfy that obligation. The CAISO stated in the March 9 meeting that it assumes only 10,293 MW is dispatched in the LA Basin when determining the San Diego area LCR for 2012.

The CAISO's 2012 Final LCR Manual at page 6 states that "all existing generation resources shall be modeled (less announced retirements)" when determining LCR amounts,

and further provides that "[g]eneration resources shall be dispatch[ed] up to the latest available net qualifying capacity or historical output values (if NQC not available) for purposes of the 2012 Technical Study."

The Manual does not appear to allow discretion to assume some qualifying generation will be unavailable when determining LCR amounts, this lack of discretion is particularly relevant when generation availability has a direct and significant effect on the LCR amount for another local area. Notwithstanding this apparent conflict, SDG&E seeks clarity on exactly how the CAISO considered the interdependency of the San Diego and LA Basin local areas in estimating the LCR amounts for each area to ensure that the "[i]mport capability into the local area shall be maximized" (Manual at page 7). What methodology and assumptions were used, why were they selected, and could other viable approaches have resulted in a lower San Diego area LCR amount?

ISO response: The LCR manual, as well as the described methodology, clearly states that the purpose of the LCR study is to determine the minimum need based on the established criteria. In order to do so, ISO may be required to reduce thousands of MW of capacity until the most limiting constraint is found. The same methodology is used for the overall local need between LA Basin and San Diego. The interdependence between these two local areas is described in pages 2-3 above.

2. The CAISO should release LCR study inputs and outputs so Market Participants can collaborate effectively with the CAISO in establishing LCR amounts that comply with the CAISO Tariff, BPM and LCR Manual.

SDG&E appreciates the stakeholder meetings the CAISO conducts to inform interested parties as to its general local capacity technical study approach and results. However, as currently structured, this forum (and the subsequent commenting process) can make it difficult for stakeholders to obtain the detailed information necessary to adequately assess the CAISO's methodologies, assumptions and results. More transparency, particularly in

regards to LCR study inputs and outputs, is necessary to enable stakeholders to effectively contribute to the LCR process. From SDG&E's perspective neither the LCR Study Manual nor the Draft LCR presentations provide sufficient detail for this purpose.

Given the significant impact that the LCR results have on LSEs' obligation to arrange qualifying generation capacity, demand side management programs, and/or new transmission capacity, SDG&E urges that the CAISO err on the side of disclosing more information than may be necessary, rather than less. This will provide stakeholders with the opportunity to effectively collaborate with the CAISO in the LCR process.

ISO response: The ISO will continue to provide as much transparency as possible, within the confidentiality restrictions of the ISO Tariff.