BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.	)))	Rulemaking 10-05-006

OPENING BRIEF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON TRACK I ISSUES

I. INTRODUCTION

At the close of hearings on Track I and III issues, ALJ Allen established September 16 and October 3 as the dates for opening briefs and reply briefs, respectively. Accordingly, the California Independent System Operator Corporation (ISO) hereby submits its opening brief.

The ISO is a signatory party to the settlement agreement submitted in this proceeding on August 3, 2011. The agreement specifically "carved out" two Track 1 issues for Commission determination following the evidentiary hearing: 1) SDG&E's pending request for a need determination for new resources to meet Local Capacity Requirements (LCR); and 2) the possibility of the need to procure currently uncontracted existing resources.[1] This brief addresses the second topic, as well as the timing local capacity study issues raised by the AES Corporation (AES), a non-signatory party to the agreement.

[1] Settlement Agreement, Par. H.

II. ARGUMENT

A. The Testimony Presented by AES Supports the Proposed Timeframe Set Forth in the Settlement Agreement for the ISO's Continued Renewable Integration Studies.

The Settlement Agreement provides that the ISO will continue its renewable integration studies by incorporating the results of the once-through-cooling (OTC) studies being conducted in the 2011/2012 transmission planning process into its model. The updated results of this analysis will be made available to parties in by the end of the first quarter of 2012.[2] As part of the Settlement Agreement the signatory parties urge the Commission to continue its collaborative work with the ISO and parties, in either an extension of the current proceeding or expeditiously in the next LTPP cycle, to determine the need for flexible system resources and the timing of that need. The signatory parties have agreed that a final Commission determination of this need should be issued no later than December 31, 2012. The Settlement Agreement contains proposed milestones for an evidentiary process that would contribute to the resolution of these issues by the 2012 year end date.[3]

Testimony presented by AES witness Jennifer Didlo supports the need for urgency in adhering to a schedule that will allow the ISO to conclude its OTC studies, draw conclusions about the impacts that local capacity needs might have on the operating capabilities of the system, and make recommendations as to the need for additional resources. According to Ms. Didlo, it is important that the Commission issue procurement directives with respect to capacity needs in the Los Angeles area as soon as possible, in this LTPP cycle, so that generators will have sufficient time to, among many

[2] Settlement Agreement, Section B, at p. 4.
[3] *Id.*, 5.

other things, obtain necessary licenses and construct replacement generation.[4] Ms. Didlo noted that while additional transmission may present an alternative to generation in the LA Basin, it is not a practical solution for system needs in 2020.[5]

Mark Rothleder from the ISO participated in the Track 1 evidentiary hearings in this proceeding both as part of a panel of Settlement Agreement signatory parties presented to support the agreement, and individually to sponsor the testimony and study results submitted by the ISO on July 1. In response to questions by counsel for AES, Mr. Rothleder outlined a proposed schedule for "next steps" that must be taken in order for the ISO to complete its continued studies, provide an opportunity for an evidentiary hearing, and still meet the December 31, 2012 timeframe for a procurement directive.

Specifically, Mr. Rothleder explained that during the September-December, 2011, time period, as the ISO completes the OTC studies, the parties should given an opportunity to identify specific sensitivities that could be run once the OTC results have been incorporated into the model. With this information, a group of experts would "triage" the proposals and develop a workable list that could be developed into final runs conducted in December.[6] Responding to questions from ALJ Allen, Mr. Rothleder explained that the "whittled down" list of potential sensitivities would probably be brought back to the larger stakeholder group, possibly through workshops, and ultimately the ISO would determine the additional runs that will be included with the study results

[4] AES Ex. No. 1701, 8-9.
[5] *Id.*, 7-8.
[6] Tr. Vol.5, 364. In response to a series of questions by Mr. Reid, Mr. Rothleder proposed that the group of experts be made up of the participants from the working group that assisted with the development of the renewable integration model, including Kevin Woodruff, Jack Ellis, Dariush Shirmohammadi, Mark Minnick, Antonio Alvarez, Keith White, Rob Anderson, Bob Fagan from Synapse on behalf of DRA, Udi Helman and others. *Id.* 370-371.

released by March 31, 2012.[7] The sensitivities proposed by parties would include the Phase 2 issues addressed in the Settlement Agreement at Section C.[8] In order to stay on track for a December 31, 2012 decision and still complete the studies contemplated in the Settlement Agreement, Mr. Rothleder emphasized that "it is critical" to stay on target and within the schedule he suggested.[9]

In the Settlement Agreement, the signatory parties agreed that, based on the study results produced by the variety of scenarios studied by the ISO and the IOUs, it has not been "conclusively demonstrated" that there is a need to add capacity for resource integration purposes. As stated above, the signatory parties also agreed that further study is needed.[10] In that regard and as part of the ISO's continuing study efforts, the ISO conducted a preliminary analysis of possible local and system flexible capacity needs for the 2011-2020 timeframe and provided these results in a Board of Governors briefing on August 25, 2011. The briefing memorandum is attached as Exhibit 1 and it includes a detailed discussion of the ISO's renewable integration model and the CPUC scenario analysis presented in this proceeding, as well as the ISO's preliminary study results.[11] For the purposes of the preliminary local capacity study, the ISO used the CPUC's high load trajectory scenario and assumed that 2000 MW of the 4600 MW incremental upward balancing need that was observed in the results addressed in Mr. Rothleder's testimony would come from local resources If 50% of the local needs come from combined cycle

[7] *Id.*, 377.
[8] *Id.,* 364.
[9] *Id.,* 365. To that end, the ISO intends to host the first workshop meeting on October 7, 2011 and will send a notice to the service list in this proceeding.
[10] Settlement Agreement, 5.
[11] The Board memorandum can also be found at http://www.caiso.com/Documents/110825BriefingonRenewableIntegration-Memo.pdf To the extent necessary, the ISO requests the Commission to take administrative notice of this document.

resource additions and 50% come from combustion turbine resources, the system need for operational purposes in 2020 would be 2700MW.[12] These results were based on the assumption that all 12,079MW of OTC resources would be retired by 2020. In the briefing memorandum, the ISO noted that, according to the State Water Resource Control Board environmental protection goal, as much as 8099MW of these OTC resources may be retired by 2018. Based on the difference between 12,079MW and 8,099 MW (3980MW), combined with the showing of 4600MW needed in 2020, it is at least possible that timing of needs could arise as early as 2018. Thus, the timing of the ISO's studies and an expeditious decision in this case are of crucial importance. While the ISO intends to update this preliminary analysis with the OTC results and present findings in this LTPP proceeding, ISO management advised the Board that:

> The long lead times inherent in infrastructure development make management of the transition between now and when new infrastructure can be in service critical to system reliability achieving California's renewable generation and once-through cooling goals. To that end, Management intends to focus on:
>
> > 1) Maintaining the availability of capacity currently on the system to enable successful operations during the transition period;
> > 2) Accelerating ISO market design work to gain access to additional flexibility; and
> > 3) Refining local capacity studies for 2020, incorporating the results in CPUC-directed scenarios, and providing the results to the CPUC in the current long-term procurement proceeding so that timely procurement decisions can be made in the 2011-2012 cycle.

The ISO shares the concerns identified by AES that, given the lengthy lead times required to permit and construct generation needed for operational flexibility, long-term procurement decisions must be made quickly, preferably well before year end 2012. The Commission should approve the Settlement Agreement and continue this LTPP

[12] Board memorandum, 8.

proceeding into 2012 so that the ISO can present its study results and recommendations and the Commission can issue a timely decision.

B. Calpine Has Identified A Gap In The Long Term Procurement Process That Could Impact ISO Operational Flexibility and Grid Reliability.

Through the testimony of Matthew Barmack, Calpine pointed out that the renewable integration modeling performed by the ISO and the IOUs assumes that existing resources will remain available to help meet local or system needs, including renewable integration needs, for the 2011-2020 timeframe.[13] The ISO agreed with this foundational study assumption (except for specifically identified resources with retirement dates).[14] Mr. Barmack also testified that, according to sensitivity studies that Calpine conducted, if existing resources assumed to be available in the ISO and IOU models shut down during the planning process, substantial amounts of new replacement resources may be necessary to satisfy reliability and renewable integration needs.[15] When asked if it would be a concern to the ISO if existing resources assumed to be available in the ISO model shut down during the planning period, Mr. Rothleder stated:

> Faced with the future where we are increasing the variability of the supply resources and the fact that we are- have a picture ahead of us where the existing resources, some of them will be retired that provide the flexibility, *at this point as the grid operator the ISO would be concerned about a resource that currently provides flexibility shutting down without further review and doing some kind of assessment of the impact of that.*[16]

Calpine argues that existing generation will retire if the compensation from the markets available to them is not sufficient and stable enough to recover going forward

[13] Calpine Ex. No. 601, 9.
[14] Tr. Vol. 5, 404-405.
[15] Calpine Ex. No. 601, 2-3.
[16] Tr. Vol. 5, 406.

costs. According to Mr. Barmack's sensitivity studies, if 3200 MW of Calpine CCGT capacity is assumed to be retired and removed from the High Load Trajectory case, there is a need for 2600 MW of new replacement capacity. Removing 3200 MW of Calpine CCGT capacity from the CPUC Trajectory case results in the need for approximately 1400 MW of new replacement capacity.[17]

These study results raise concerns for the ISO. The preliminary analysis described in Exhibit 1 demonstrates a need for 2700 MW of additional system capacity by 2020, assuming that the existing fleet is available during the planning horizon. It is possible that economic retirements could increase this need and, under some circumstances, cause the ISO to rely on backstop mechanisms to maintain system reliability. In addition, depending on the technology of the resources being retired, the ISO could lose the operational flexibility that can be obtained through small investments to existing facilities.[18]

Calpine recommends that the Commission take steps in this proceeding to provide a mechanism to avoid economic retirements, and suggests that the IOUs be directed to procure additional capacity through intermediate term (3-5 years) solicitations similar to those conduced on behalf of bundled customers. Mr. Barmack described this approach as a "least regrets" way to help ensure that existing resources assumed to be available in the renewable integration models actually are available when needed. Such solicitations would be a bridge mechanism until such time as the uncertainty about future needs and market rules being developed by the ISO are resolved. His testimony describes a

[17] Calpine Ex. No. 601, 11-12.
[18] *Id.,* 14.

potential structure for these solicitations, including the use of a renewable integration model or similar tool to determine the least cost portfolio of flexible resources. [19]

The ISO agrees that a "gap" currently exists between the ISO's renewable study assumptions that existing resources modeled in the 2011-2020 time period will actually still be part of the fleet when needed as the system approaches 33% renewables, and the reality that some, or many, of these units could face economic retirement if not procured under long-term contracts. Clearly this gap must be addressed and the Commission in this proceeding has the opportunity to design a flexible solicitation process and intermediate term procurement directive as suggested by Calpine. The ISO urges the Commission to take these steps in the decision to be issued by the end of 2011.

Respectfully Submitted,

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[19] *Id.*, 15-19. Mr. Barmack notes that the ISO proposed a similar approach in R.09-10-032 to address concerns that LSE RA procurement was failing to provide the ISO with resources with the specific operating characteristics need to reliably operate the system.