

**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

AES SOUTHLAND, LLC'S OPENING BRIEF ON TRACK I ISSUES

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(Filed May 6, 2010)

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AES Southland submits the following opening brief concerning Track I issues in Rulemaking R.10-05-006, Long-Term Procurement Proceeding, pursuant to the briefing schedule adopted by Administrative Law Judge Allen on August 15, 2011.

I. INTRODUCTION.

AES Southland purchased three gas-fired generation facilities from Southern California Edison (SCE) in May 1998: AES Huntington Beach, AES Redondo Beach, and AES Alamitos. (Ex. 1701 at 2 (AES, Didlo).) These three facilities supply 4,140 megawatts of local capacity within the transmission-constrained Western sub-area of the LA Basin Local Capacity Area (LCA). (*Id.*) These generating resources represent 50% of the total net qualifying capacity in the Western sub-area (*id.* at 3), and were initially built by SCE as part of an integrated urban power delivery system. The concurrent planning of generation stations and transmission lines to minimize urban transmission requirements has created a high level of local dependence on these facilities that effectively utilize the transmission grid to satisfy system reliability. (*Id.* at 5, 6.)

Each of the facilities employs once-through cooling (OTC) technology. These facilities are thus subject to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters

for Power Plant Cooling (OTC Policy) adopted by the California State Water Resources Control Board, and are currently required to comply with the OTC Policy by December 31, 2020. (*Id.* at 1-2). In order to comply with the OTC Policy, AES Southland intends to redevelop its locations by retiring the current operating units and replacing them with state-of-the-art gas turbine technology. Such redevelopment, however, has to proceed in phases to allow AES Southland to meet its current contractual commitments, maintain unit availability critical to local area reliability during construction, and to undertake construction within its physical land footprint. In support of this effort, AES Southland has started the permitting process, dedicating millions of dollars for application fees to perform analysis, field testing, and valuation. (*Id.* at 3, 6.) However, based on the current electricity market structure and projected future market prices, AES Southland will need long-term contracts to secure financing to support the construction of new generation. (*Id.* at 3 (AES, Didlo).)

Redevelopment of the AES Southland locations is essential to sustain adequate local supply for SCE's customers, by providing effective relief of otherwise major transmission constraints within the Western sub-area of the LA Basin LCA. (Ex. 1700 at 2 (AES, Ballouz).) Studies by AES Southland, SCE, and the CAISO have all confirmed a local capacity resource (LCR) need in the LA Basin LCA. However, given the timeline needed for an SCE solicitation, contract negotiation and approval, permitting and licensing, financing, and construction, a procurement authorization must be made as soon as possible, but no later than December 2012. (*Id.* at 4.)

The settlement proposed in this proceeding for certain Track I issues (Settlement) suggests that the Commission postpone any decision on SCE's LCR need until December 2012. AES Southland did not sign onto the Settlement due to its concerns that the Settlement outlines a

proposed path forward that does not ensure that the Commission will be in the position to issue a decision in December 2012. As CAISO's Mark Rothleder testified, there is "an urgency" in determining what SCE's LCR need is, so that the necessary generation can be developed in time. (Tr. 360:7 – 10 (CAISO, Rothleder).) The Commission must ensure that a decision is issued by December 2012 at the latest, or there will not be sufficient time to permit and construct the required generation resources in a phased development that will allow for the continued provision of essential local generation.

In addition, the Commission should authorize SCE to procure a minimum "no regrets" amount of generation of up to 2,000 MW in the Western sub-area of the LA Basin LCA in this LTPP cycle as an interim measure should a final determination not be made by the end of 2012. (Ex. 1701 at 8-9 (AES, Didlo); Tr. 836:13 – 838:3 (AES, Didlo).) Such authorization will increase the likelihood that a minimum amount of the generation capacity essential for the Western sub-area of the LA Basin will be available by 2020, as well as hedging against a potential further delay of an LCR need determination beyond 2012.

II. RESOURCE LOCATION MUST BE CONSIDERED WHEN MAKING PROCUREMENT DECISIONS FOR THE WESTERN SUB-AREA OF THE LA BASIN LCA.

Electric Power Engineers (EPE) has performed an analysis to study the effect of the possible retirement of the generating units at Huntington Beach, Alamitos, and Redondo Beach as a result of the OTC Policy. (Ex. 1700 at 1 (AES, Ballouz).) That analysis established the significance of these three generating stations in relieving major transmission constraints within the Western sub-area of the LA Basin LCA and further showed that redevelopment at some or all of these locations is essential for effective relief of otherwise major transmission constraints within the Western LA Basin area. (*Id.* at 2.) EPE's analysis (based on the CAISO Portfolio 4

assumptions, including generation under construction in the LA Basin, the 33% RPS, and transmission projects that are planned or in development) showed that approximately 2,300 MW will be required at the AES Southland locations to reliably serve loads in the Western sub-area of the LA Basin LCA. (*Id.* at 4.) If resources are installed in locations other than at the AES Southland locations, EPE's analysis determined that considerably more than 2,300 MW of generation will be needed. (*Id.*)

EPE's study showed that the retirement of Huntington Beach, Redondo Beach, and Alamitos at the end of 2020 without redevelopment at these locations would result in significant overload of eight Western LA Basin transmission lines. (*Id.* at 9.) Adding 2,300 MW of generation at the AES Southland locations, however, would mitigate seven of the eight transmission constraints, and significantly reduce the eighth. (*Id.* at 10.) In contrast, adding 3,600 MW of generation at non-AES Western LA Basin generation units would only mitigate three of the eight constraints. The analysis included several scenarios some of which take into consideration the full repowering plans at El Segundo and Long Beach. (*Id.* at 13.) Thus, the failure to consider location in LCR procurement decisions will result in the need to procure significantly more generation at less effective locations, ultimately imposing unnecessary costs on ratepayers and producing inadequate energy reliability.

Moreover, siting new generating facilities within the highly urbanized LA Basin does not appear to be a feasible alternative, as new transmission lines would be required, available real estate is limited, and there would likely be formidable opposition to creating a new industrial site. (Ex. 1701 at 7 (AES, Didlo).) Additionally, such new generation would leave the existing transmission lines (which currently serve otherwise retired generating plants) underutilized at the same time new transmission lines would be required. (*Id.*)

New transmission also does not appear to be a feasible solution. The CAISO's 2010-2011 Transmission Plan analyzed what transmission upgrades would be necessary to mitigate the Western LA Basin constraints that were analyzed in EPE's study. (Ex. 1700 at 11,12 (AES, Ballouz).) The Transmission Plan concluded that procuring sufficient LCR generation in the Western LA Basin would be less expensive than constructing a new 500 kV line. (*Id.* at 12.) Furthermore, the Transmission Plan stated that the planning and construction of major new transmission lines should only be pursued after the OTC repower implementation plans became available. (*Id.* at 5.) Finally, attempting to permit and construct major new transmission lines in the highly urbanized LA Basin would likely take longer than redeveloping brownfield generation and new transmission projects in this area may be extremely difficult to site. (Tr. 828:11 – 829:2 (AES, Ballouz); Ex. 1701 at 7-8 (AES, Didlo).)

III. TO AVOID WESTERN LA BASIN CAPACITY SHORTAGES IN 2020, A DECISION ON SCE'S LCR NEED MUST BE ISSUED BY DECEMBER 2012.

Originally, a decision on LCR needs was to be issued prior to the end of this year. The Settlement proposes to extend the schedule to December 2012 in order to allow the CAISO to complete further studies. (Tr. 361:1 – 18 (CAISO, Rothleder).) One such study would be the CAISO's current study of LCR needs resulting from OTC retirements. The CAISO intends to complete that study by December 2011, and the study results would then be incorporated into the CAISO models and presented to all parties by no later than March 2012. (*Id.* at 361:19 – 362:2.) Meeting the March 2012 deadline is essential to allow sufficient time to meet the December 2012 need determination contemplated in the Settlement. (*Id.* at 362:3 – 7.)

The Settlement also contemplates that at least some type of "Phase 2" study would also be completed by the CAISO. (*Id.* at 362:8 – 22.) That study should also be completed prior to March 2012. (*Id.* at 362:23 – 363:5.) However, depending on the scope of the Phase 2 study, it

could potentially delay the Commission decision on LCR need proposed for December 2012. (*Id.* at 363:6 – 19.) Completing any Phase 2 study by March 2012 is “critical,” in the words of the CAISO’s Mark Rothleder, to ensure that the Commission can issue a decision on LCR need by December 2012. (*Id.* at 365:3-12).

AES Southland did not sign on to the Settlement due to the fact that it left open the potential for a broadened scope for Phase 2 studies that would make it all but impossible for the Commission to reach an LCR decision by December 2012. As explained above, it is essential that an LCR need determination in the LA Basin be made, at the latest, by December 2012, so that the necessary resources can be developed and will be in service when needed. AES Southland urges the Commission to take whatever steps are necessary to ensure that, if the Settlement is adopted, the proceeding stays on a schedule that will allow for an LCR need decision in December 2012, regardless of the status of completion of CAISO’s Phase 2 studies.

As described above, the AES Southland generation is critical to maintaining grid reliability. The redevelopment of these resources must proceed in phases to both ensure grid reliability through the continued operation and availability of existing units and to enable AES Southland to work within the limited land it has to construct new resources. (Ex. 1701 at 4 (AES, Didlo).) It is expected to take up to four years for AES Southland to obtain all necessary permits, contracts and financing to begin construction, and each redevelopment phase will require an additional three to five years before construction is completed. (*Id.*) Given such a schedule, the first phase of an AES Southland redevelopment could be commercial approximately seven years from now, assuming the need determination, contracting, and permitting proceed in parallel. A “no regrets” authorization issued to SCE no later than the end of 2012 will significantly increase the likelihood that the first phase of the new generation can be

operable at the AES Southland locations in time to meet the OTC compliance deadline. If a need determination is delayed, the result will inevitably be both increased costs and increased potential for LCR generation not to be available when and where it's needed to ensure inadequate power supply and grid reliability. (*Id.* at 5).

IV. IF NECESSARY, BEFORE THE END OF 2012, SCE SHOULD BE AUTHORIZED TO PROCURE A “NO REGRETS” AMOUNT OF UP TO 2,000 MW OF LOCAL CAPACITY RESOURCES IN THE WESTERN LA BASIN LCA.

As explained above, EPE's analysis showed that 2,300 MW of local capacity resources were needed after OTC retirements to mitigate transmission constraints in the Western LA Basin LCA. Furthermore, SCE's base case shows an LCR need in the LA Basin LCA of approximately 2,000 MW, with the low case need being approximately 500 MW and the high case need being approximately 6,500 MW when OTC resources are retired. (Ex. 209 at 18 (SCE, Minick).) SCE's analysis was based upon an assumption that the 750 MW Sentinel facility was located within the LA Basin LCA. (*Id.* at 16.) The 2010 LTPP Standard Planning Assumptions identify the Sentinel facility as being outside the LA Basin LCA, and particularly outside the Western LA Basin, and therefore the deficiency calculated in SCE's testimony is really 2,750 MW. (Ex. 1700 at 4 (AES, Ballouz).) EPE's analysis also showed that if location of generation within the LA Basin LCA is not optimized, then considerably more than 2,750 MW will be necessary as the sub-area LCR needs may not be satisfied. (*Id.*) Finally, in Portfolio 4, which the CAISO says is the most likely scenario in 2020, there are about 2,000 MW of repowered OTC facilities imbedded in the assumptions. (Tr. 837:2 – 6 (AES, Didlo).)

It is therefore clear that SCE needs to procure at least 2,000 MW of local capacity resources in the Western LA Basin LCA based on numerous studies using a wide variety of assumptions. Although further studies may clarify exactly how much local capacity resources

must be procured in the Western LA Basin LCA, the 2,000 MW represent a “no regrets” amount of procurement that will indisputably be needed.

V. THE PROCUREMENT PROCESS.

AES Southland emphasizes that it supports the Commission’s competitive bid process and intends to submit competitive bids. However, AES Southland also recognizes the inescapable fact that there may be no feasible alternatives to repowering much of the capacity at some or all of its Huntington Beach, Redondo Beach, and Alamitos generation facilities. As a result, AES Southland is willing to consider cost-based contracts with the utilities for certain locally required resources consistent with what was envisioned when Assembly Bill 1576 (Nunez) was passed by the California legislature in 2005. (Ex. 1701 at 8 (AES, Didlo).)

VI. CONCLUSION

AES Southland urges the Commission to ensure that a final determination of SCE’s LCR need be made by December 2012 at the latest. In addition, if a final determination is not timely reached, AES Southland urges the Commission, by no later than year-end 2012, to authorize SCE to procure a minimum “no regrets” amount of local capacity resources for the Western LA Basin, up to 2,000 MW. These actions are needed to ensure continued reliable electric service to a critical urban area in Southern California.

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