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 12-03-014 (Filed March 22, 2012)

AES SOUTHLAND, LLC'S COMMENTS ON PROPOSED DECISION AUTHORIZING LONG-TERM PROCUREMENT FOR LOCAL CAPACITY REQUIREMENTS

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Pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure, AES Southland, LLC (AES Southland) submits the following opening comments on the Proposed Decision Authorizing Long-Term Procurement for Local Capacity Requirements dated December 21, 2012 ("Proposed Decision").

I. INTRODUCTION

The Proposed Decision would authorize Southern California Edison (SCE) to procure a maximum of 1,500 megawatts (MW) of electrical capacity for the Western Los Angeles sub-area of the Los Angeles Basin local capacity area (Western LA Basin LCA), and further caps this amount at a maximum of 1,200 MW of gas-fired generation. That limited procurement authorization is based on overly optimistic assumptions regarding the actualization of preferred resources, which is then further reduced by unreasonable amounts of uncommitted energy efficiency—and poses a significant risk to future reliability in the Western LA Basin LCA.

The California Independent System Operator (CAISO), relying upon studies it performed based on NERC and WECC planning criteria and CAISO tariff requirements, and with significant stakeholder involvement, concluded that a minimum of 2,400 MW is needed to replace retiring generation utilizing once-through cooling (OTC) technology in the Western LA Basin LCA. CAISO further calculated that the need could be as high as

3,896 MW, under the Time Constrained Scenario. The lower end of the range (2,400 MW) corresponds to the amount of generation that would be needed if it were located at existing OTC sites most effective at mitigating identified transmission constraints; the higher end (3,896 MW) corresponds to the amount of generation inside the Western LA Basin LCA that would be needed if it were located at existing OTC sites least effective at mitigating the identified transmission constraints. Even under the Environmentally Constrained Scenario, which the CAISO believes contains overly optimistic assumptions concerning the growth of distributed generation—the CAISO calculated that a range of between 1,870 and 2,884 MWs of new generation was needed, the lowest range of need projected in the CAISO's studies. The midpoint of that range—2,377 MW—is effectively twice what the Proposed Decision would authorize SCE to procure from gas-fired generation. SCE itself requested authority to procure up to 3,871 MW to ensure reliability, consistent with the CAISO's range of projected need. The Proposed Decision would allow SCE to procure far less than half that figure, and less than a third of that amount from gas-fired generation.

The Proposed Decision dismisses the risk that the procurement amount it authorizes is insufficient to ensure reliability, and that its optimistic assumptions concerning preferred resources might not materialize, by noting that "[i]f our adopted maximum procurement level is too low, there will be timely opportunities to obtain additional resources in future long-term planning proceedings." (PD at 64.) The record in this proceeding indisputably shows otherwise. All remaining OTC generation in the Western Los Angeles Basin is scheduled to retire by the end of 2020, amounting to over 4,900 MW of generation. (PD at 8, Table 1.)[1] The general consensus among the parties to this proceeding is that repowering those facilities will take a minimum of seven to nine

[1] This includes El Segundo Units 3 and 4, which are scheduled to be retired 12/31/15, and Huntington Beach Units 3 & 4, which are already retired.

years. If development of replacement generation is not commenced now, the opportunities to develop generation at the OTC sites that are uniquely effective to eliminate transmission constraints may be lost, as noted by the CAISO, SCE and others. (PD at 61.) The Commission cannot underestimate local capacity resource needs with the hope that there will be opportunities to correct that error in the future.

AES Southland urges that the Proposed Decision be revised to authorize SCE to procure up to 3,871 MW of resources, including, if necessary, gas-fired resources, to meet the Western LA Basin LCA needs. Such authorization is essential to provide SCE the flexibility to respond to changing market conditions and most effectively procure generation to replace the retiring OTC facilities prior to their compliance dates. SCE may not ultimately need to procure a larger amount of capacity, but it's important that they have the flexibility to contract with the most effective resources and react quickly if the assumptions underlying the procurement authority do not materialize.

II. DISCUSSION

A. The Proposed Decision's Procurement Authorization is Based Upon Unsupported and Overly Optimistic Assumptions

1. The Proposed Decision Assumes that SCE will be able to procure resources at the most effective locations

As noted by the Proposed Decision, the primary driver of the need for new capacity in the Western LA Basin LCA is the retirement of OTC generation pursuant to the State Water Quality Control Board's Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy). AES Southland's three gas-fired generation facilities in SCE's service territory (AES Huntington Beach, AES Redondo Beach, and AES Alamitos) supply fifty percent of the total net qualifying capacity in the Western LA Basin LCA, a total of 3,690 MW. All of these units use OTC technology,

and therefore must comply with the Water Board's OTC Policy by December 31, 2020. (Ex. 1701 at 1-2 (AES, Didlo)[2].)

Electric Power Engineers, Inc. (EPE), third party transmission experts retained by AES Southland, performed an analysis to study the effect of the retirement of generation at Huntington Beach, Redondo Beach and Alamitos as a result of the OTC Policy. (AES-1 (Ballouz)). That analysis established the significance of these three locations in relieving major transmission constraints within the Western sub-area of the LA Basin LCA. The analysis further showed that significant redevelopment at some or all of these locations is essential for effective relief of otherwise major transmission constraints within the Western LA Basin. The CAISO studies confirm that if generation is located other than at the most effective sites, significantly greater generation capacity will be needed. SCE also notes the importance of siting generation at the most effective sites—sites currently occupied by OTC generation. (Ex. SCE-1 at 15-16 (Cabbell).)

The Proposed Decision concedes that its procurement authorization "implicitly assumes that new capacity will be sited at the most effective sites." (PD at 65.) However, limiting SCE's procurement authority is a blunt instrument for directing SCE to procure generation from the most effective sites. This Commission can direct SCE to consider location in evaluating generation (though SCE already concedes the importance of location in determining the effectiveness and therefore the value of replacement generation), while at the same time granting SCE sufficient procurement flexibility to obtain necessary resources in light of an uncertain, complex and dynamic future.

The Proposed Decision further makes optimistic assumptions about the emergence of preferred resources to address LCA need, but fails to consider that there are numerous uncontrollable factors that will determine the effectiveness, if any, of these

[2] Ex. 1701 was entered into the record during hearings in R.10-05-006.

resources, including the location and attributes these resources can provide. Of course, uncertainty concerning both the location and the attributes of these preferred resources further increases the uncertainty of whether such resources will provide effective solutions to the Western LA Basin LCA need.

The issue of whether resources are located at effective locations is further exacerbated by the limited procurement authority provided in the Proposed Decision, and its stated notion that if that authority proves to be insufficient, additional resources can be added in the future. There is no guarantee that OTC generation sites will remain available indefinitely for the development of replacement generation. Moreover, siting greenfield generating facilities at new locations 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); Ex. SCE-1 at 15-16 (Cabbell).) Additionally, such new generation would leave the existing transmission lines underutilized at the same time new transmission lines would be required. (Ex. 1701 at 7 (AES, Didlo).) The development timeline and difficulty in siting new transmission lines similarly make a transmission solution to the Western Basin LCA need infeasible. The Commission has a unique opportunity to effectively plan for the replacement of OTC generation and opportunities squandered now will likely not be available in the future.

2. The Proposed Decision Makes Unfounded Assumptions Concerning the Availability of Preferred Resources

Not only does the Proposed Decision assume that procurement will occur only at the most effective sites, it further makes a number of unfounded assumptions to reduce that overall procurement to half of the minimum recommended by the CAISO, and to less than a third of the procurement authorization requested by SCE. It does so first by relying upon a sensitivity analysis performed by the CAISO to study a variation on the Environmentally Constrained Portfolio. That Portfolio, deemed less likely by the CAISO

than the Trajectory scenario, resulted in a range of OTC replacement need from 1,870 to 2,884 MW, according to the CAISO studies. That sensitivity analysis assumed for the Western LA Basin LCA that 1,121 MW of uncommitted energy efficiency, and 180 MW of CHP would be available to reduce demand. The Proposed Decision found that this amount of uncommitted energy efficiency was the "maximum level of uncommitted energy efficiency for the LA basin local area." (PD at 50.) Under that sensitivity analysis, a minimum OTC replacement of 1,042 MW was needed for the Western LA Basin LCA. The Proposed Decision uses that figure to calculate its minimum amount of procurement—1050 MW. The Proposed Decision then calculates a maximum procurement level of 1,500 MW by calculating a midpoint between the 1050 MW and the 1,870 MW minimum the CAISO calculates is required under the Environmentally Constrained Scenario.

The Proposed Decision thus ultimately bases its procurement authorization on a sensitivity analysis that the CAISO strongly recommends against using for any determination of local needs, and on a scenario that the CAISO states is not the most likely one. Further, use of that scenario provides lower amounts of replacement generation than any other scenario, which the Proposed Decision further reduces by assuming a maximum amount of uncommitted energy efficiency, as well as assuming that the location of these measures will sufficiently reduce load at places that will be most effective in avoiding existing transmission constraints. The result is an inadequate procurement authorization that represents the lower range of all possible scenarios and sensitivities studied by the CAISO. Finally, SCE's ability to procure clean gas-fired generation is limited to 1200 MW, only 150 MW greater than the minimum need calculated in a sensitivity the CAISO warns the Commission not to rely on.

The CAISO's Robert Sparks cogently explained in supplemental testimony served June 19, 2012 as to why the results of the sensitivity analysis should not be relied upon to make a determination of LCR needs. (Ex. ISO-2). As Mr. Sparks explained, the load

forecast used by the CAISO, developed by the Energy Commission, already included certain levels of energy efficiency and combined heat and power resources. The Energy Commission itself noted, however, that load reductions due to uncommitted energy efficiency, "while plausible, have a great deal of uncertainty surrounding the method, timing and relative impact of their implementation." (CEC 2011 IEP Report, quoted in Ex. ISO-2 at 5.) As Mr. Sparks pointed out, uncommitted energy efficiency, even if it was effective in reducing load on a system-wide basis, could easily "fail to provide the expected load relief if the programs are not successfully deployed when and where needed in the constrained local capacity area." (ISO-2 at 5). As noted above, the location of resources has a significant impact on whether that resource is effective in alleviating transmission constraints. Even if additional uncommitted energy efficiency appears, there is no guarantee it will be in a location that will provide the needed LCR benefits.

B. The Commission Cannot Afford Further Delays in Procuring Needed Resources

As the Proposed Decision notes, numerous parties explained that it takes, on average, approximately seven to nine years to develop gas fired generation. (PD at 24, 38, 61; Exhibit SCE-1 at 16-17 (Silsbee).) Both the CAISO and SCE explain, and the Proposed Decision acknowledges, that "some procurement opportunities associated with gas-fired power plants [] may be lost if there is a delay in moving forward, due to a likely seven to nine year lead time." (PD at 61.) Given the possible retirement of California's nuclear facilities, load growth, and the importance of gas-fired generation options that will allow for integration of increasing amounts of renewable generation, California cannot afford to postpone or forgo these "unique fleeting opportunities" with the uncertainties that the future holds.

In R.10-05-006, the record of which is incorporated in this proceeding (PD at 4), AES Southland and GenOn California North, LLC (GenOn) provided extensive evidence

as to the timeline needed to develop gas-fired generation, even in a best-case scenario. AES Southland has projected that it will take seven years, at a minimum, to contract, permit and construct replacement generation facilities. (Ex. 1701 at 4 (AES, Didlo).) AES Southland also explained that it can't retire all of its generation prior to constructing replacement resources, as this will result in the loss of a significant amount of the net qualifying capacity in the Western LA Basin LCA. Instead, redevelopment at the existing sites must proceed in a manner that allows AES Southland to keep a substantial amount of its local generation in service throughout the construction period, so that local area reliability can be maintained and construction can occur within the land that is available.

GenOn provided detailed public information concerning the timeline for developing its Marsh Landing project, a "relatively non-controversial project that received approval without substantial active opposition." (GenOn Brief at 5-9.) That project will take more than five years from the date that Pacific Gas & Electric's Long Term Request for Offers was issued to achieve commercial operation.

AES Southland also submitted evidence showing that AES has started the permitting process, dedicating millions of dollars for application fees and to perform analysis, field testing, and valuation. (Ex. 1701 at 3, 6 (AES, Didlo).) However, based on the current electricity market structure and projected future market prices, AES will need long term contracts to secure financing to support the construction and commercialization of new generation. (*Id.* at 3.)

Absent such long term contracts, it is unlikely that any project development will proceed at any OTC sites needed for Western LA Basin reliability. The woefully low procurement authorization sends the message to OTC facility owners that their resources are not needed and therefore it is difficult to justify spending any capital pursuing permits. Unfortunately, failure to take advantage of these opportunities to repower OTC sites will endanger reliability in the region and threaten important environmental goals of

retiring OTC facilities, developing and integrating increasing amounts of renewable generation, and reducing greenhouse gas emissions.

The Proposed Decision suggests that the Commission could authorize additional procurement, if necessary, in the 2014 long-term procurement proceeding. That proceeding would likely result in a final procurement decision sometime in late 2015, early 2016, at the earliest. That would leave a scant five years between any procurement authorization and the likely retirement of current OTC generation, an insufficient time by any account to permit, contract, and construct replacement gas-fired generation. Nor is there any guarantee the option to repower OTC sites will remain available in the absence of a procurement authorization in this proceeding. Furthermore, the Commission cannot continue to spend time and resources in this and future proceedings analyzing OTC replacement needs. Among other matters that need to be resolved in this and future proceedings are renewable integration needs, system resource needs, and resources to replace California's nuclear facilities in the event those facilities are retired. (Scoping Memo, May 17, 2012.)

It is therefore essential that the Commission grant SCE sufficient flexibility (consistent with SCE's request) to procure needed replacement OTC generation in this proceeding that is above the 1,200 MW of gas-fired resources authorized in the Proposed Decision. SCE needs the flexibility to respond to dynamic market conditions and react if assumptions underlying the Proposed Decision are incorrect.

C. Under procurement Creates Significantly Greater Risks than Over procurement

As the Proposed Decision notes, a primary responsibility of the Commission is to ensure reliability in the electrical system. (PD at 34.) CAISO witness Sparks further explained that "the consequences of being marginally short versus marginally long are asymmetric. A marginal shortage means loss of firm load, which puts public safety and the economy in jeopardy, whereas a marginal surplus has only a marginal cost

implication." (Exhibit ISO-2 at 3-4 (Sparks)). The Proposed Decision emphasizes that the Commission is not only required to ensure reliability, but also to pursue reasonable rates and a clean environment. (PD at 35-36.) However, being overly conservative in granting procurement authorization would also likely lead to adverse impacts to both rates and increase environmental effects. If the preferred resources the Proposed Decision relies on do not in fact materialize, there would not be sufficient time to repower at existing OTC sites to provide needed capacity. The options for providing needed capacity would become increasingly narrow, with the likelihood that existing OTC generation would be required to remain in operation beyond the current December 2020 deadline, with the associated environmental impacts. The cost implications of failing to develop sufficient repowered generation at current OTC sites also runs the risk that the alternatives, developed on a much shorter timeline, will also be more costly. Thus, all three "primary statutory directives" identified in the Proposed Decision—reliability, reasonable rates, and a clean environment—counsel in favor of ensuring that the Commission's authorization provide the flexibility to procure sufficient replacement OTC generation to allow that generation to be constructed and in operation by the end of 2020, or shortly thereafter.

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III. CONCLUSION

The Proposed Decision should be modified to grant SCE the flexibility to procure up to 3,871 MW to ensure reliability, consistent with the CAISO's range of projected need. Such authorization is essential to allow SCE the ability to most effectively procure generation to replace the retiring OTC facilities and react appropriately as more information becomes available such as the future of the nuclear fleet and the actualization of preferred resources and uncommitted energy efficiency.

DATED: January 14, 2013

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VERIFICATION

I am the attorney for AES Southland, LLC (AES Southland), and am authorized to make this verification on AES Southland's behalf. AES Southland is unable to verify the foregoing document in person as AES Southland is located outside of the County of San Francisco, where my office is located. I have read the foregoing **AES SOUTHLAND, LLC'S COMMENTS ON PROPOSED DECISION AUTHORIZING LONG-TERM PROCUREMENT FOR LOCAL CAPACITY REQUIREMENTS** and am informed and believe, and on that ground allege, that the matters stated are true and correct to the best of my knowledge.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 14th day of January, 2013, at San Francisco, California.

/s/ Seth D. Hilton

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