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California Energy Commission
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California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

**RE: Docket No. 12-IEP-1C**
**Comments on June 22, 2012 IEPR Workshop on Electricity Infrastructure Planning**

Dear Mr. Jaske:

AES Southland Development, LLC (AES-SL) appreciates the opportunity to provide comments to the California Energy Commission (CEC) on the June 22, 2012 IEPR Workshop on Electricity Infrastructure Planning.

AES-SL is the owner of the largest fleet of once-through-cooled (OTC) generating facilities in California, all of which are natural gas fired steam generators located within the Western Los Angeles local reliability area. Our portfolio is comprised of the Redondo Beach, Alamitos and Huntington Beach generating stations, which together have over 3,800 MWs of installed capacity and 12 generating units. The facilities are located in the Los Angeles basin Local Capacity Requirement (LCR) area and represent approximately 17 percent of Southern California Edison's peak demand[1], 30 percent of the total installed capacity in the LA Basin LCR area and 36 percent of the California Independent System Operator's (CAISO's) projected LCR need in 2011[2].

Current analyses by the California Independent System Operator (CAISO) on the need to replace once-through-cooling (OTC) generating plants in the Western Los Angeles reliability area indicate that there is a range of potential replacement generation needs. The replacement generation required for retiring OTC plants could be as low as 1,870 MW and as much as 3,896 MW, depending on the assumed location of the replacement generation within the Western Los Angeles sub-area and the future generation and demand scenario. The CAISO also noted the growing deficit in generation ramp up and down created by the increasing amount of intermittent renewable energy being delivered to the system.

As noted by the CAISO, the most effective way to deal with both local reliability needs and the integration of renewable energy is to first solve for local reliability using flexible generating technology. This approach reduces the additional flexible generation that would be required solely for mitigating the demands placed on the system by intermittent and somewhat unpredictable generating sources. The result not only reduces the total cost for new and

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[1] Southern California Edison's all-time peak demand of 22,889 MWs was set on July 25, 2006. AES-SL's total rated capacity of 3,817 MWs represents 18.6% of SCE's all-time peak.
[2] According to the CAISO's 2011 draft LCR study results, the Total Qualifying Capacity of available generation in the LA Basin LCR is 12,977 MWs and the LCR need for the region is 10,589 MWs.

replacement generation, but also reduces greenhouse gases since fewer kilowatt-hours are required (and hence less fossil fuel consumption) to maintain local and grid reliability.

The CAISO analyses, however, do not include contingency measures that would deal with extended outages, or retirement of southern California's nuclear generators. It is imperative that analyses that include a nuclear free generation scenario be evaluated as soon as possible since plans and decisions to retire and replace OTC generation are already being formulated and executed. Since it requires, on average, seven years to develop and construct new natural gas generating plants in California (as measured from the date of filing an application to the CEC to commercial operation), there will not be enough time to amend plans and permits, and stay in compliance with all applicable laws and regulations, should the range of required OTC generation be increased. An even worse scenario could also develop where the option of replacing an OTC plant or unit is lost as a result of commitments or plans made by the plant owners who have assumed their units are no longer necessary. Should a scenario develop where more, or all OTC generation, is likely or even plausibly needed, then the CAISO, CEC and California Public Utilities Commission must signal the market and direct all relevant agencies to insure the option of replacing all of the Western Los Angeles sub-area OTC plants is maintained and not lost.

The current San Onofre Nuclear Generation Station outage has also demonstrated that ancillary electrical system services are at least as important to the reliability of the transmission grid as the location of installed capacity and delivered energy. While the location of generating facilities is critically important to reliability, the location and viability of services such as voltage support can prove to be just as important. Reliability Must Run contracts for synchronous condensers are a viable option to provide cheaper solutions for maintaining reliability. Such options should be considered and evaluated in the RMI study.

Recent and forthcoming air quality management plans, energy policies and state implementation plans from the South Coast Air Quality Management District (SCAQMD) and the Air Resources Board (ARB) have imposed further restraints on future in-basin generation for Los Angeles and southern California. Severe air quality conditions and the fact that no further progress towards cleaner air can be achieved without wholesale changes to fuel consumption and energy use in the transportation sector have placed additional burden on electricity generation and delivery. New fossil fueled generation that can be developed in the greater Los Angeles area has essentially been limited to only the replacement of existing, electric utility steam generators, including the existing OTC plants. This highlights the necessity of insuring the option of replacing all of the OTC plants and generating units is maintained.

Demand for electricity from the transportation sector (including ports, cargo movement and personal transportation) has not been included in demand forecasts (to the extent envisioned by the SCAQMD) which will put added pressure on the reliability of the electrical grid in future years. While options will have to be considered, including: the very difficult task of constructing new transmission lines; in basin renewable generation; and, electric energy storage systems, the replacement of aging electric utility steam generators consistent with the SCAQMD's Rule 1304 is one of the only options left for ensuring enough in-basin capacity will be present in future years. The CEC, CAISO and CPUC must work with the SCAQMD to insure that this valuable option of developing cost-effective replacement capacity is not changed or eliminated. Suggestions to change Rule 1304 and/or the existing Emission Reduction Credit system and force replacement generation to fund air quality mitigation projects would place an additional financial burden on California rate payers who are already facing escalating costs from infrastructure upgrades and renewable portfolio standards. In addition, since new, natural gas fired and pollution controlled generation represents the cleanest form of combustion of any

fuel, this type of policy would actually reward the users of the dirtiest forms of energy with subsidy from funds received from the cleanest sources. This would be a step backwards for California to have a policy that incentivizes the polluters and not the industry leaders.

AES-SL appreciates the opportunity to provide these comments. Please do not hesitate to contact me at (562) 493-7840 or stephen.okane@AES.com should you require further clarification of these comments or have any questions.

Sincerely,

Stephen O'Kane
Vice-President
AES Southland Development, LLC