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AES Alamitos

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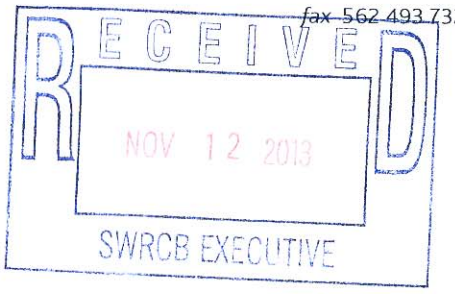

November 8, 2013

Thomas Howard
Executive Director
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

RE: Information Requirements for the Alamitos Generating Station

Dear Mr. Howard,

This letter is in response to your September 11, 2013 correspondence requesting additional information for the AES Alamitos Generating Station (ALGS) Implementation Plan (IP). As stated in your letter, you wish to obtain further information and data to conduct grid reliability analyses to determine the impact on local and system reliability.

As you are undoubtedly aware, there are a number of significant constraints and assumptions that AES Southland (AES-SL) must consider in developing and executing our IP for the ALGS as well as our two other once-through-cooled (OTC) generating stations located in the Los Angeles basin local reliability area. As AES-SL has indicated in our past communications with your agency, the complexity and interdependency of these constraints and assumptions means the AES-SL IPs for complying with the Statewide Water Quality Control Policy on the Use of Coastal Estuarine Waters for Power Plant Cooling (OTC Policy) represent only our best planning assumptions at this time and cannot be construed as definitive development plans. Decisions and approvals by other state agencies and the counterparty and timing of any long term procurement agreements will dictate the design of the ultimate plan and its schedule for implementation. AES-SL believes that the State Water Resources Control Board (SWRCB) would benefit if AES-SL met with the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) so that we could discuss the many different scenarios that could come to fruition prior to the currently mandated deadline for compliance for our facilities. This would provide the SWRCB and SACCWIS with better insight into the specific issues facing AES-SL and we respectfully request consideration of this proposal.

Notwithstanding the considerable uncertainty that exists with AES-SL's plans for complying with the OTC Policy, the following information has been compiled assuming we are able to continue with our original Track 1 path of compliance at the ALGS. AES-SL has provided the most current information for the ALGS as requested in your letter.

1. *The proposed mechanism to bring each unit into compliance: With extended compliance dates, additional California Public Utilities Commission (CPUC) procurement authorization, and power purchase agreements in place, the preferred compliance approach will be via Track 1. All six existing OTC units, total 2,010 Mega Watts (MW) will be retired and repowered/replaced with four new dry-cooled natural gas fired combined cycle 3-on-1*

combined cycle (sic) power blocs (approximately 2000 MW). AES Southland's current implementation plan requires the extension of compliance dates for Units 3 and 4 to end of 2023 and Units 1 and 2 to end of 2026.

The construction of new power blocks is dependent upon several additional assumptions:

a. *Emission offset requirements can be achieved by reliance upon Southern California Air Quality Management District (SCAQMD) rule 1304(a)(2).*
b. *The CPUC will authorize additional capacity procurement in the 2014 and 2016 Long-Term Procurement Plan (LTPP) proceedings.*
c. *The schedule meets the offtakers desired commercial operation dates. However the entire AES Southland fleet repower project may become prohibitively expensive prompting abandonment of all or part of the Track 1 compliance path, if Rule 1304.1 is adopted.*

AES-SL's preferred compliance approach will be via Track 1 of the OTC Policy. Repowering of the six ALGS OTC generating units will occur in phases using dry-cooled natural gas fired combined cycle gas turbine (CCGT) power blocks which will eliminate the use of ocean water at the site. Construction of new power blocks totaling approximately 2,000 MW and demolition of existing OTC generating units totaling 2,010 MW will occur in phases to maintain generating capacity at the site at all times. The largest generating units at the ALGS (Units 5 and 6) can be retired December 31, 2018 and December 31, 2019, respectively, prior to the OTC compliance date, assuming two new approximately 500 MW each CCGT power blocks are ready for commercial operation in early 2019 and early 2020, respectively. This schedule assumes there can be an interruption in service for several months between the shutdown of the existing units and the commercial operation of the new CCGT power blocks. The demolition and removal of Units 5 and 6 will make room for a third 500 MW CCGT power block. Units 3 and 4 will continue operating through the end of 2023 until approximately four months prior to commercial operation of the third CCGT power block in early 2024. Similar to the schedule for Units 5 & 6, it has been assumed that the available capacity of the ALGS could be reduced by 500 MW for four months during the low season for power demand. Units 3 and 4 will be demolished and removed to make space for a fourth 500 MW CCGT power block. Units 1 and 2 would be permanently retired by the end of 2027 approximately four months prior to commercial operation of the fourth CCGT power block in early 2028.

The redevelopment of the ALGS is dependent upon obtaining non-recourse project financing supported by long-term power purchase agreements and by meeting the emission offset requirements of the South Coast Air Quality Management District (SCAQMD) permitting process by relying on the provisions of SCAQMD Rule 1304(a)(2). Since the California Public Utilities Commission's (PUC) decision in the 2012 Long Term Procurement Planning (LTPP) process authorized only a limited amount of natural gas fired generation in Track 1 of the 2012 procurement cycle, it is not expected that sufficient contracting opportunities for the entire replacement of the generating capacity at the ALGS will result until the conclusion of the PUC's 2014 and 2016 LTPP processes. If these future procurement authorizations are limited in size or postponed, then our proposed compliance schedule may need to be revised again.

The schedule for executing AES-SL's preferred compliance approach with the OTC Policy at the ALGS will be determined by the desired commercial operation dates of the counterparty to any

long-term power purchase agreement and approval of extensions to the OTC compliance dates by the State Water Resources Control Board.

2. *What actions have been taken to obtain permits, obtain contracts or meet other regulatory obligations to implement the compliance mechanism identified above?*

AES-SL has been developing the engineering design for the redevelopment of the ALGS and preparing an Application for Certification (AFC) for submittal to the California Energy Commission (CEC) and an application for a Permit to Construct and revised Title V permit to the SCAQMD. The ALGS is the single largest operating generating facility in Southern California and is constrained to only 63 acres. The development of the engineering design and plan for new generation on the site while maintaining generating capacity at all times has proven to be significantly more complex and time consuming than the design for either the AES Huntington Beach or AES Redondo Beach Generating Stations. The complexity of the ALGS is the primary reason permit applications for this site lag behind the submittal of our applications for our two other sites. AES-SL still intends on filing an AFC to the CEC and Permit to Construct to the SCAQMD by the end of 2013. An interconnection request for new generating capacity has been submitted to the California Independent System Operator (CAISO) and a will serve letter for water and sewer service for the redeveloped ALGS site has been received from the City of Long Beach.

To date, no contracting opportunities have concluded that will enable nonrecourse financing for project development at the ALGS. Southern California Edison (SCE) has filed a procurement plan with the PUC and issued a Request for Offers (RFO) for new generation in the western Los Angeles reliability area. Indicative bids are due to SCE by December 16, 2013 and AES-SL intends to participate in this RFO. The PUC has authorized up to 1,200 MW of conventional natural gas-fired generation in the Western Los Angeles Basin to meet reliability needs. More authorization is required for the redevelopment of the ALGS. It is not expected that sufficient contracting opportunities for the entire replacement of the generating capacity at the ALGS will result until the conclusion of the PUC's 2014 and 2016 LTPP processes.

AES-SL does not intend on reducing the repowered capacity of the ALGS to meet a plant wide limit of 100 tons per year of PM2.5 to avoid providing offsets for PM2.5, per the requirements of SCAQMD Rule 1325. Instead, AES-SL will accept a federally enforceable limit on the total site wide PM2.5 potential to emit for the ALGS. Such a limit would not result in reduced installed capacity at the ALGS but would limit the total number of hours of operation of equipment at the site, thereby limiting the total annual capacity factor of the facility. AES-SL has identified natural gas turbines that will operate at an economically viable capacity factor while meeting the requirements to avoid PM2.5 offsets under SCAQMD Rule 1325.

3. *The detailed schedule, technology and MW capacity by unit*:

AES-SL plans to construct approximately 1,000 MW of air cooled combined cycle gas turbine (CCGT) generation on existing space at the ALGS without demolishing any operating generating unit. Two new, approximately 500 MW each, CCGT power blocks would be constructed as the replacement for Units 5 and 6 (993 MW). The first block could be ready for commercial operation in early 2019 and the second block in early 2020. Assuming a short gap in the total capacity of ALGS was acceptable, this would allow the early retirement of Unit 6 at the end of 2018 and Unit 5 by the end of 2019 in compliance with the current OTC policy. However, if both

blocks could secure long-term power purchase agreements in the current RFO, then it is possible that these first two blocks could both be in service in early 2019, assuming SCE had an interest in having the capacity in operation sooner. In this scenario, both Units 5 & 6 could be retired at the end of 2018, again assuming a 1,000 MW reduction in overall capacity from ALGS could be tolerated for approximately four months during the off-peak season.

ALGS Units 3 and 4 (667.9 MW) would be replaced by a third CCGT power block of approximately 500 MW in capacity, constructed on the site of the retired and demolished Units 5 and 6. AES-SL seeks an extension of the compliance date for Units 3 and 4 to the end of 2023, approximately four months prior to when the new unit is expected to be online. Just prior to the commercial operation of the third CCGT power block at ALGS, Units 3 and 4 would be retired and demolished to make space for a fourth CCGT power block.

ALGS Units 1 and 2 (349.6 MW) would be replaced by the fourth, approximately 500 MW CCGT power block which would be constructed on the site of the retired and demolished Units 3 and 4. The fourth CCGT power block is expected to reach commercial operation in early 2028, allowing the smallest OTC generating units at the ALGS, Units 1 and 2 to be retired by December 31, 2027.

4. *If there are non-OTC units at a generation facility, indicate if compliance with the OTC policy will, in any manner, affect the operation of the non-OTC units; if so how?*

There are no other operating or operable generating units at the ALGS other than Units 1 through 6. ALGS Unit 7 was a gas turbine peaking unit that was retired in 2001. Compliance with the OTC Policy will not affect any other units at the ALGS.

Additional questions:

1. *Has compliance with SCAQMD PM2.5 Rule 1325 prompted additionally analysis that shows the combined capacity of the new units will likely be less than the combined capacity of the existing units?*

As indicated in our response to the questions above, compliance with SCAQMD PM2.5 Rule 1325 will not impact AES-SL's development plans for total installed capacity for the repowered ALGS. Requirements of the rule will however, affect the annual capacity factor of the site. A federally enforceable limit on the total site wide PM2.5 potential to emit for the ALGS will be required for compliance with Rule 1325. Should a counterparty to AES-SL in any power purchase agreement require AES-SL to be able to deliver a higher annual capacity factor for its units, the installed generating capacity would have to be less than planned.

2. *AES Southland in their letter to the State Water Board dated March 31, 2013 requested State Water Board OTC compliance date extensions for Alamitos Units 1, 2, 3, and 4 but indicates that "Should the CAISO's planning assumptions change and AES-Southland can secure long-term CPUC approved contracts to support new generating capacity, the redevelopment of AES-Southland sites and the phasing of new generating units at the Alamitos (sic) could proceed more quickly than proposed in the attached development schedule." If the conditions are met, what is the most accelerated time-frame feasible for repower the facility?*

Assuming that AES-SL proceeds with the repowering of the ALGS with our preferred 3-on-1 CCGT technology, that generating capacity is maintained at the site during all phases of the redevelopment and that contracts, financing, permits and licenses could be in place by the end of 2015, AES-SL could have 1,000 MW of new non-OTC generation in operation by early 2019, which should allow the retirement of the OTC Units 5 and 6 at the end of 2018. OTC Units 3 and 4 could be retired by the end of 2022, approximately four months prior to commercial operation of a third 500 MW power block in early 2023. The final 500 MW could be operational in early 2027 allowing the retirement of OTC Units 1 and 2 by the end of 2026.

AES-SL has taken every possible action to move both the contracting and permitting process forward and maintain our commitments to provide reliable power and generating capacity while moving as quickly as possible to comply with the OTC Policy. AES-SL has participated in the PUC Long Term Procurement Planning process, invested significant resources in engineering design and preparing applicable permits for the Alamitos Generating Station repower project and is responding to the contracting opportunities presented by SCE. However, the electricity planning, contracting and development process in California is extremely lengthy and considerable uncertainty still exists in our schedule and plan for compliance with the OTC Policy. If the CEC permitting process at ALGS suffers significant delays, similar to what we have seen with our Huntington Beach and Redondo Beach applications, or future procurement authorizations are limited in size or postponed, then our current proposed schedule may need to be further modified. AES-SL wishes to extend an invitation to your organization to meet with the SACCWIS and explain in detail the constraints we are facing in our efforts to meet our compliance obligations.

If you have questions regarding this submittal, please contact Stephen O'Kane, AES-Southland, LLC at (562) 493-7840.

Sincerely

Jennifer Didlo
President
AES-Southland