



690 North Studebaker Road  
Long Beach, CA 90803  
tel 562 493 7891  
fax 562 493 7320

January 6, 2017

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 November 7, 2016 correspondence requesting the latest information for the AES Alamitos Generating Station (AES-AL) Implementation Plan (IP).

As we have previously communicated, there are a number of significant assumptions that AES Southland (AES-SL) must consider in developing and executing our IP for AES-AL as well as our two other once-through-cooled (OTC) generating stations located in the Los Angeles basin local reliability area – AES Huntington Beach (AES-HB) and AES Redondo Beach (AES-RB). Many of these assumptions are dependent upon conditions and decisions outside of the control of AES-SL. As an independent generator providing contracted capacity to the local utility, the need for, and decision to contract with, AES-SL resources to meet electricity reliability needs is determined by the utility, local area balancing authority (CAISO) and the California Public Utilities Commission (CPUC). Without *first* obtaining specific direction or receiving a request to enter into contracts for AES-SL generating capacity, AES-SL will not be requesting any extension to the current OTC compliance dates. Should AES-SL resources be required to maintain grid reliability in the future, it is highly possible that a request for an extension of an OTC compliance date will be made with less than one year notice before the current AES-SL OTC compliance dates are reached. This would require the State Water Board to act much quicker than has been assumed in your letter if electrical reliability is to be maintained. AES-SL strongly suggests the State Water Board develop criteria for approval of OTC compliance date extensions and amendments to the OTC policy immediately, such that decisions on individual generating unit OTC compliance dates can be made judiciously and quickly without jeopardizing electrical reliability.

Given the uncertainty of the assumptions and the challenges associated with trying to predict the future, the AES-SL IPs and any updates to the IPs represent our best intentions at this time, but they are subject to change and cannot be construed as definitive plans. Future market developments, the physical state of the electricity transmission and distribution grid and decisions by other state agencies will influence the ultimate actions of AES-SL and their timing.

Before addressing the State Water Resources Control Board's specific questions, AES-SL provides the following general comments which may help to simplify understanding the IPs. AES-SL currently intends to comply with the Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy) by utilizing Track 1 and shutting down and permanently retiring all generating units at AES-AL, AES-HB and AES-RB that utilize OTC, per the compliance dates included in the OTC Policy. AES-SL does not currently plan to retrofit any of the existing units with alternate cooling technologies to comply with Track 1, or utilize any operational or technical measures to comply with Track 2. In the event additional new generating resources are needed in order to maintain a reliable supply of electricity, AES-SL intends to provide these new resources through competitive solicitations issued by the utility(s) and these resources would be constructed on one or more of the existing sites, but they will utilize air cooling and would not be subject to the OTC Policy.

With respect to OTC generator retirement timing, a Resource Adequacy contract has been executed with Southern California Edison that would extend the operation of AES-AL generating units 1, 2 and 6 through December 31, 2019 and AES-AL generating units 3, 4 and 5 through December 31, 2020. The contract is still subject to approval from the California Public Utilities Commission. All AES-AL generating units will be permanently retired at the end of their respective contracts in compliance with the OTC Policy. AES-AL and AES-HB were awarded Power Purchase Agreements (PPA) for nominal 640 MW and 644 MW capacity combined-cycle gas turbines (CCGTs) with commercial operation dates of April 1, 2020 and March 1, 2020, respectively, which will require the shutdown of three existing AES-AL units prior to the OTC Policy compliance date due to limited interconnection capacity at AES-SL and to satisfy South Coast Air Quality Management District rules for new emission sources.

Answers to your specific questions in your letter are provided below.

**1. Has any of the information<sup>1</sup> above changed?**

Yes. AES-AL generating units 1, 2 and 6 will be retired by December 31, 2019 as opposed to units 1, 2 and 5. AES-AL generating units 3, 4 and 5 will be retired by December 31, 2020.

The Phase 2 400 MW of simple-cycle gas turbines (SCGTs) included in the Supplemental Application for Certification to the California Energy Commission would be exempt from obtaining emission offsets per the provisions of South Coast Air Quality Management District Rule 1304a(2), provided the construction of the new SCGTs commenced within two years after existing steam generating units have been retired. AES-SL would not have to procure emission reduction credits for the SCGTs if construction of these units begins before December 31, 2022.

AES-SL is aware of the CAISO 2015-2016 Transmission Plan report and the potential mitigation measures proposed to support generating capacity in the Los Angeles Basin prior to the in service date of the Mesa Loop-In Transmission Project. However, AES-SL cannot verify information provided by the CAISO, nor any conclusions that the load balancing authority may make regarding AES-SL generating resources.

**2. Are there any contingencies that would prevent AES-SL from meeting its commercial operation date or PPA date of the new facility?**

---

<sup>1</sup> State Water Resources Control Board, November 7, 2016 letter to Jennifer Didlo

The development of new generating resources by AES-SL is contingent upon the approval and issuance of a license and Permit to Construct by the CEC and SCAQMD by May 1, 2017 to meet the commercial operation date and PPA date of the new Alamitos Energy Center. Recent information received from SCE suggests that coordinating the retirement of the existing generating units and construction of the new interconnection facilities may also put the scheduled commercial operation date at risk. Other potential delays to meeting commercial and contractual dates would be common to any large infrastructure development project and would include the normal, reasonably expected construction and development risks.

**3. Does AES-SL plan to retire Alamitos Units 1, 2 or 5 earlier than December 31, 2019 or Alamitos Units 3, 4 or 6 earlier than December 31, 2020?**

As noted above, AES-SL intends to retire Alamitos units 1, 2 and 6 by December 31, 2019 and Alamitos units 3, 4 and 5 by December 31, 2020. There are no plans to retire these units any earlier than these dates.

**4. Are there any contingencies that would prevent AES-SL from meeting its OTC Policy compliance date?**

The retirement of AES-AL units and subsequent compliance with the OTC Policy deadlines for the station are contingent upon compliance with the California Public Utility Commission's (CPUC) General Order 167, Appendix E which requires AES-AL to notify the CPUC in writing at least 90 days prior to a change in the long-term status of a generating unit (Operating Standard 23), and to maintain said generating unit in readiness for service until after the CPUC and the Control Area Operator affirmatively declare that the generating unit is unneeded (Operating Standard 24). The shutdown of AES-AL generating units and subsequent start-up of new generating units planned for AES-AL is dependent on compliance with General Order 167 and the requirements of the SCAQMD Rule 1304a(2).

**5. If Mesa Loop-In is delayed, could Alamitos Units 3, 4 or 6 be a potential solution to CAISO's identified deficiency in the Western Los Angeles Basin subarea? If not, why?**

As noted above, AES-AL unit 6 would be retired by December 31, 2019 and would not be available as a potential solution to the CAISO's identified deficiency. AES-AL units 3, 4 and 5 could be available as generating capacity to meet reliability requirements in the Western Los Angeles Basin subarea until such time these generating units would need to be retired per SCAQMD Rule 1304a(2) to enable new qualifying generation or until no longer needed by the local balancing authority. The State Water Board would need to amend the OTC policy and extend the OTC compliance date for these units and provide AES-AL an exemption from meeting the requirements of the State Implementation Policy (Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California), the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California, Total Maximum Daily Load limits for specific parameters in the San Gabriel River and all other rules and regulations that would prevent the discharge of AES-AL cooling water into the San Gabriel River.

Discharge of cooling water at AES-AL is regulated under California Regional Water Quality Control Board (CRWQCB) Los Angeles Region Order No. R4-2015-0173 and NPDES No. CA0001139. Order No.

R4-2015-0173 contains permit discharge and receiving water limits for temperature and a number of select pollutants which cannot be met through any technological or operational means. The water quality of the cooling water intake from the Los Cerritos channel of Alamitos Bay at AES-AL already exceeds pollutant discharge limits and the thermal discharge of the generating units cannot be lowered to meet the receiving water limits in the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California. As such AES-AL is currently operating under a Time Schedule Order issued by the CRWQCB which requires compliance with all NPDES requirements by December 31, 2020. AES-AL units 3, 4 and 5 would need regulatory relief for both intake *and* discharge policies, rules and regulations from the State Water Resources Board to continue operating the OTC system.

**6. In the event of an OTC Policy compliance date extension, are there electrical configurations, permit constraints, or any other reasons that would make some units preferred over others?**

As noted above, as currently planned, the only AES-AL generating units that could be available to continue operating beyond the current OTC Policy compliance are Units 3, 4 and 5. Units 1, 2 and 6 will be retired on December 31, 2019 to enable the start-up of a new 640 MW CCGT. Also, as noted above, there are water quality and temperature discharge permit limits that will restrict AES-AL units from operating beyond the term of the current Time Schedule Order issued by the Los Angeles Regional Water Quality Control Board unless regulatory relief is provided.

There is sufficient interconnection capacity in the AES-AL switchyard to allow the operation of Units 3, 4 and 5 simultaneously with the new CCGT. Operation of AES-AL Unit 5 is reliant on auxiliary steam from other AES-AL generating units, therefore, Unit 5 could not continue to operate without either Unit 3 or 4 also remaining in operation to provide auxiliary steam. There are no other operational or electrical constraints that would make certain units preferred over others from an AES-SL perspective. However, Southern California Edison and/or the CAISO may have a preference of certain units over others based on the specific unit characteristics and electrical transmission and distribution system needs. AES-SL has no information on either Southern California Edison's or the CAISO's potential preference for specific generating units.

**7. Please identify any period with a disruption in service between the shutdown of existing units and the commercial operation date of the new units.**

There will be a disruption in service at AES-AL from January 1, 2020 when Units 1, 2 and 6 are permanently retired, until at least April 1, 2020 when the new CCGT is expected to reach its COD. The disruption in service could extend to June 1, 2020, the initial delivery date of the new CCGT in the power purchase agreement, should there be delays in construction or commissioning of the new unit.

**8. Does construction of the 640 MW CCGT now in permitting at the CEC physically interfere with the operation of the existing units? If so, which units? Please explain why.**

Construction of the new 640 MW CCGT will not interfere with the operation of the existing units at AES-AL.

**9. Does the proposed air permit from SCAQMD allow some combination of old and new Alamitos units to operate simultaneously?**

Yes. The new 640 MW CCGT can operate in conjunction with AES-AL Units 3, 4 and 5.

**10. Does the transmission switchyard or the interconnection capacity with the CAISO build system limit operation of old and new Alamitos units? If so, please describe these interactions and the nature of the limit.**

The AES-AL switchyard has an interconnection capacity limit of 2,010 MW. The new CCGT unit can be operated in conjunction with units 3, 4 and 5 without causing a switchyard interconnection issue.

**11. Is there any other information that the State Water Board should be made aware?**

It is AES-AL's current assumption that Units 1, 2 and 6 will be shut down and permanently retired when their respective contract terms end on December 31, 2019. These units will be shut down to enable the new CCGTs at both AES-AL and AES-HB to be placed in service. If there is a possibility that Units 3, 4 or 5 will be needed beyond their current December 31, 2020 OTC Policy compliance date, AES-AL needs to know this well in advance. There must be sufficient time to negotiate a contract and secure a revenue stream so that the necessary staffing retention program can be implemented and the units are maintained at a level that supports continued reliable operations beyond December 31, 2020. Without this financial certainty, it will be virtually impossible to retain the necessary expertise to continue operating the units and certain maintenance will be deferred or not performed based on the expectation that the units will be retiring December 31, 2020.

One option for addressing this uncertainty could be to enter into a contingent option contract for one or more units with Southern California Edison or CAISO if there is an expectation that additional generation might be needed beyond the current compliance date. The contract could include an effectiveness provision that was directly tied to a decision by the Water Board to extend the compliance date for electricity reliability purposes. It also could include a termination right and associated payment to AES-AL in the event a unit or units were not ultimately needed during the option period. This would not only prevent a last minute fire drill if additional generation is ultimately needed beyond the current compliance date, but it would also provide the certainty needed to address employee retention and ensure the necessary maintenance was performed to allow continued operation.

AES-SL continues to take every possible action to move the development process for new generating units at AES-AL forward and maintain our commitments to provide reliable power and generating capacity while progressing as quickly as possible to comply with the OTC Policy. AES-SL has participated in the CPUC's Long Term Procurement Planning process, filed applicable permits, reduced OTC flows significantly and has responded to the contracting opportunities presented by the local utility. However, the electricity planning, contracting and development process in California is extremely lengthy and considerable uncertainty still exists in California's plans for maintaining electrical reliability in southern California beyond the current OTC compliance dates. Unless the current State and Regional Water Board regulatory and permitting issues are addressed and a suitable contracting mechanism developed for the continued operation of AES-AL generating units within a reasonable time frame, then none of the existing AES-AL units will be available as a potential electrical resource beyond December 31, 2020. As we have offered multiple times to the State Water Board, AES-SL wishes to extend an invitation to your organization to meet with the SACCWIS and explain in detail the constraints California is facing to maintain electrical reliability under the current regulatory structure and from an actual owner and

operator of the generating resources. We hope to hear from you and your organization soon so you can understand in detail the constraints and schedules we've described above in more detail.

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