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November 8, 2018

Eileen Sobeck  
Executive Director  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814

**RE: Grid Reliability Information Requests for the Alamos Generating Station**

Dear Ms. Sobeck,

This letter is in response to your September 12, 2018 correspondence requesting the latest information for the AES Alamos generating station (AES-AL) Implementation Plan (IP). AES-AL and AES Southland Energy, LLC (AES) are subsidiaries of the AES Corporation.

As we have previously communicated, there are a number of significant assumptions that the State Water Resources Control Board must consider when implementing the statewide *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy)*, while continuing to ensure grid reliability. Many of these assumptions are dependent upon information, conditions and decisions outside of the control of AES. As an independent generator providing contracted capacity to the local utility, Community Choice Aggregators (CCAs) or directly to the California Independent System Operator (CAISO), AES is not responsible for evaluating and maintaining grid reliability. However, AES is ready and prepared to respond to grid reliability needs as determined by the utility, local area balancing authority (CAISO), the California Public Utilities Commission (CPUC) and the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) should such a need arise. Without **first** obtaining specific direction or receiving a request to enter into contracts for AES generating capacity, AES will not be requesting any extension to the current OTC compliance dates.

In your letter, you have stated that AES-AL should allow adequate time for the State Water Board to process a request for an extension of the compliance dates set forth in the OTC Policy. As there are currently no conditions under the control of AES-AL which would necessitate such a request, AES-AL asserts it is the sole responsibility of the SACCWIS, under the authority of the State Water Board, to make an assessment of grid reliability and resiliency, and to recommend OTC compliance date extensions in a time frame that will allow adequate time for your own agency to act. Such a schedule must consider not only an amendment to the OTC Policy, but also adequate time for the state's Regional Water Quality Control Boards to amend or reissue the NPDES permits associated with the affected facilities. Since all of the AES facilities, including AES-AL, have a December 31, 2020 OTC compliance date, AES strongly urges the State Water Board and SACCWIS to make their grid reliability assessment and recommendation for OTC Policy amendments for the AES-SL facilities in the next annual SACCWIS report to be published in the spring of 2019. AES believes there will not be adequate time to amend the OTC Policy, negotiate contracts with the grid operator and/or utility, issue new or amended NPDES permits and physically prepare the affected generating units for extended operating life without a decision from your agency in 2019.

Before addressing the State Water Resources Control Board's specific questions, AES provides the following general comments which may help to simplify the understanding of the IPs. AES currently intends to comply with the OTC Policy by utilizing Track 1 and shutting down and permanently retiring all generating units at AES-AL, AES-Huntington Beach (AES-HB) and AES-Redondo Beach, per the compliance dates included in the OTC Policy. AES does not 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 intends to provide these new resources through competitive solicitations issued by the utility(s) or CCAs and these resources would be constructed on one or more of the existing sites, would utilize air cooling technology, 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 extends 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 Resource Adequacy contract for the AES-AL generating units received final approval from the California Public Utilities Commission on September 28, 2017. 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 PPA Initial Delivery dates of June 1, 2020 and May 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-AL 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. First fire of the 640 MW combined-cycle gas turbine replacement generating at AES-AL will occur October 3, 2019 as opposed to November 1, 2019 as indicated in your letter. All other information listed is correct. AES-AL generating units 1, 2 and 6 will be retired by December 31, 2019 and AES-AL generating units 3, 4 and 5 will be retired by December 31, 2020. AES-SL expects the new 640 MW CCGT to achieve commercial operation by April 1, 2020, well ahead of the guaranteed Initial Delivery Date of June 1, 2020 in the Power Purchase Agreement.

**2. Is AES-SL on track to complete construction of the new AEC facility to meet its commercial operation date or PPA date for the new facility?**

Yes. Construction of the new 640 MW combined-cycle gas turbine (CCGT) commenced on July 1, 2017 and is currently on schedule. Construction of the 100 MW Battery Energy Storage System is scheduled to begin in 2019.

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<sup>1</sup> State Water Resources Control Board, September 12, 2018 letter to Jennifer Didlo

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

An unforeseen delay in construction or commissioning of the new 640 MW CCGT replacement generation at AES-AL could prevent AES from meeting its OTC Policy compliance dates. The retirement of AES-AL units and subsequent compliance with the OTC Policy deadlines for the facility are contingent upon compliance with the CPUC's 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 existing AES-AL OTC generating units and start-up of new generating units planned for AES-AL is dependent on compliance with General Order 167 and the requirements of the South Coast Air Quality Management District Rule 1304a(2). Should an unforeseen event cause the delay of construction or commissioning, it is unlikely the CPUC and CAISO would declare the existing OTC generating units unneeded.

**4. 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. Further, it is AES-AL's current assumption that Units 3, 4 and 5 will be shut down and permanently retired when their respective contract terms end on December 31, 2020. If there is a possibility that AES-AL 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.

In addition, an extension of OTC compliance dates and amendment to the OTC Policy for one or more generating units at the AES-AL generating station would not address the industrial discharge limits established in the facility's NPDES permit. AES-AL discharges OTC effluent into a water body subject to the *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) and the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan). These water quality plans establish limits on the discharge of chlorine, copper, enterococcus bacteria and water temperature from AES-AL, which cannot be feasibly met through any sort of water quality control measure, engineering control, retrofit or operational change. The Los Angeles Regional Water Quality Control Board has issued AES-AL a Time Schedule Orders (TSO) which requires the facility to come into compliance with the subject water quality and thermal limits by December 31, 2020, the same schedule as the current OTC compliance deadline. Since the water quality of the OTC intake at AES-AL already exceeds the discharge limits for water quality, and the temperature limits established by the Thermal Plan are also far below the discharge temperature of these OTC units, there is no feasible way to comply with the NPDES permit limits beyond ceasing operations. AES-AL will require both an extension to the OTC compliance dates and a new TSO should any of the OTC generating units at the facility be needed beyond December 31, 2020 to ensure grid reliability.

AES 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 safe, reliable power and generating capacity while progressing as quickly as possible to comply with the OTC Policy. AES has participated in the CPUC's Long Term Procurement Planning process, timely filed and received all applicable permits for replacement generating capacity, reduced OTC flows significantly, responded to the contracting opportunities presented by the local utility, and invested hundreds of millions of dollars in new construction at our sites. 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 wishes to extend an invitation to your organization to meet with the SACCWIS and explain in detail the constraints AES and California is facing to maintain electrical reliability under the current regulatory structure, from an actual owner and operator of the generating resources. We hope to hear from you and your organization soon so you can understand 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,



Ken Zagzebski  
President  
AES Southland Energy, LLC