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March 31, 2013

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

RE: Implementation Plan, Request for Additional Information:
Redondo Beach Generating Station

Dear Mr. Howard,

This letter is in response to your December 11, 2012 correspondence requesting additional information for the AES Redondo Beach Generating Station (RBGS) Implementation Plan (IP) and subsequent letter of January 31, 2013 granting additional time for AES Southland (AES-SL) to respond. As AES-SL stated earlier, recent developments in proposed regulatory action by the South Coast Air Quality Management District (SCAQMD) and the final decision of Administrative Law Judge (ALJ) David M. Gamson in the Public Utilities Commission's (PUC) Long Term Procurement Planning (LTPP) process have caused AES-SL to reconsider the method and timing of compliance with the Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Policy). Since our key assumptions for AES-SL's phased retirement and repowering of generation units described in the IP for the RBGS include both a reliance on SCAQMD Rule 1304(a)(2) to comply with emission offset requirements for replacement generating units, and non-recourse project financing supported by long-term PUC approved contracts, considerable uncertainty still exists in AES-SL's plans for the timing and methods of compliance with the Policy.

The PUC decision in the 2012 LTPP authorizes only a limited amount of natural gas fired generation in this procurement cycle which will delay the repowering of some of the AES-SL fleet. The PUC authorized up to 1,200 MW of new natural gas fired generation in the western Los Angeles basin, less than half of the minimum amount recommended by the California Independent System Operator (CAISO). In addition, the CAISO's recommendation assumed that both units at the San Onofre Nuclear Generating Station (SONGS) were in service, which is not a certainty given the ongoing concerns over the reliability of the recently replaced steam generators and the pending expiration of the NRC license in 2022.

The primary assumption that supported AES-SL's original repowering schedule submitted in our IP was that the PUC would authorize a sufficient amount of new natural gas fired generation by the end of the 2012 LTPP cycle to enable the retirement and replacement of more than half the capacity of the AES-SL OTC fleet via this first procurement authorization. Since this did not occur, AES-SL's has prepared a revised repowering schedule based on the assumption that additional procurement for the replacement of natural gas fired generation would be authorized during the 2014 and 2016 LTPP cycles. However, if such procurement is not authorized, AES-SL will again need to reconsider its method and timing for compliance with the Policy.

Even more problematic for electrical reliability planning and AES-SL's own repowering assumptions is a newly proposed fee by the SCAQMD for projects using Rule 1304(a)(2). Proposed Rule 1304.1 has the potential to make the repowering of all of AES-SL's fleet prohibitively expensive and would cause AES-SL to evaluate alternative compliance options with the Policy. As of the date of this letter, the SCAQMD has not adopted this new fee rule but continues with a formal rule making process with the intent of implementing new fees for replacement generation projects later this year. Should Rule 1304.1 be adopted as proposed, AES-SL may need to abandon a Track 1 compliance path for some or all of its existing capacity and seek alternative compliance options.

Although AES-SL has made significant progress in refining and advancing our original Track 1 compliant IP for the RBGS, including the submission of an Application for Certification (AFC) to the California Energy Commission (CEC) for the development of new non-ocean cooled generating units, our primary path for compliance with the Policy and its timing can only be considered tentative at this time.

Notwithstanding the considerable uncertainty that exists with AES-SL's plans for complying with the Policy, the following information has been compiled assuming we are able to continue with our original Track 1 path of compliance at the RBGS. AES-SL has already made progress in reducing ocean water intake flows at our Huntington Beach Generating Station (HBGS) through the retirement of Units 3&4 in 2012 and our updated IP with early retirement dates for four generating units in the AES-SL fleet and compliant retirement schedules for all of our largest generating units should be considered when evaluating the request for unit specific deadline extensions. As previously stated in our IP of 2011, AES-SL must phase its redevelopment to ensure system reliability and compliance with overarching Federal Energy Regulatory Commission (FERC) standards and California Independent System Operator (CAISO) transmission planning assumptions. AES-SL has developed a reasonable approach and schedule to comply with the Policy that considers electrical system reliability but it does require compliance date extensions for a few specific units. These compliance date extensions are offset by early retirements of other units such as HBGS Units 3 and 4 and RBGS Units 6 and 8.

AES-SL has responded to each of your requests for information below:

1. The AES-SL application for certification submitted to the CEC for repowering the units at Huntington Beach explicitly describe RBGS units 6 and 8 as planned for retirement to enable Huntington Beach units to be permitted without providing offsets via South Coast Air Quality Management District (SCAQMD) Rule 1304(a)(2). Thus, the proposed schedule for Huntington Beach repower and its use of RBGS units to implement SCAQMD's Rule 1304 appear to be inconsistent with the IP for RBGS submitted to State Water Board. Therefore, an update IP is required not only due to the sale of Huntington Beach units 3 and 4 to Edison Mission Energy, but also to address the above inconsistency.

Subsequent to AES-SL's submission of an Implementation Plan for the RBGS on April 1, 2011, we have refined and advanced our project development plan for the replacement of existing OTC generating units and revised our proposed project development schedule. It must be noted that with the 2012 LTPP decision only recently finalized, the proposed project development schedule may change yet again in the near future. AES-SL intends to replace the OTC generating units at RBGS with dry-cooled natural gas fired combined cycle units which will result in the complete cessation of ocean water intake at the RBGS, in compliance with the implementation schedule dictated by the Policy.

A project development schedule was submitted to the CEC as part of our AFC for the Redondo Beach Energy Project (RBEP). The schedule submitted to the CEC on November 20, 2012 projects a commercial operation date (COD) for a new 3-on-1 combined cycle power block at the RBGS by the end of the second quarter of 2019. The RBEP schedule also includes the retirement of Units 5 and 7 in order to utilize the SCAQMD's Rule 1304(a)(2) for emission offsets. Considering the limited procurement of natural gas fired generation authorized by the PUC in the 2012 LTPP cycle and the controversial climate surrounding the proposed RBEP, it has become less likely that a contract, CEC license and SCAQMD Permit to Construct could all be approved in time to meet a second quarter 2019 COD date. Considering the uncertainty in obtaining the major project development milestones for the RBEP, AES-SL is anticipating delays and must plan for a 2020 COD date for the new generation at the RBGS. Additionally, AES-SL is working with the City of Redondo Beach to explore alternative uses for the property that may not include future power generation. If these discussions prove to be successful, it is prudent that Units 5 and 7 have the flexibility to operate through their current December 2020 compliance date, especially due to the uncertain future of SONGS.

AES-SL's planned retirement and repowering schedule has been attached to this letter as an updated Implementation Plan. The Implementation Plan shows the retirement of Units 6 and 8 by the end of the fourth quarter of 2018 to enable a COD of 2019 for new generation located at the Huntington Beach Generating Station and a retirement date of 2020 for Units 5 and 7 to enable new generation at the RBGS or to be able to operate them until they are permanently retired on their current compliance date.

2. AES-SL seeks an extension of compliance schedule for units 5 and 6 for March/April 2022. Further information must be submitted to State Water Board staff that supports reasoning for such a proposal, and provide an update on the progress made to date for units 7 and 8 toward the IP.

As of the date of this letter AES-SL intends to permanently end all ocean water OTC at the RBGS by the end of 2020 and is no longer seeking an extension of the compliance dates for the RBGS. It should be noted that all schedules and assumptions associated with the development of the RBEP may still change as a result of: project revisions required to satisfy Conditions of Certification that may be imposed by the CEC for new generation planned at RBGS; the inability to secure non-recourse project financing supported by long-term PUC approved contracts; or the adoption of SCAQMD Rule 1304.1. However, it is the assertion of AES-SL that the dates mandated by the SWRCB for compliance with the Policy for the RBGS can be met.

Significant progress towards the implementation of a Track 1 compliance path for all four OTC units at RBGS has already been made. AES-SL has invested significant time and resources in developing non-ocean cooled replacement generation at the RBGS which has been clearly demonstrated through our AFC submitted to the CEC.

3. *Information on the effectiveness of implementing water intake flow reduction, a comparison of present and historical water intake flow, and the megawatts production. Per section 2.C.(2) of the Policy, no later than October 1, 2011, the owners or operators of existing power plant units were required to cease intake flows when not directly engaged in power generating activities or critical system maintenance.*

We are seeking authorization from various contractual counterparties to share production and flow data that is otherwise confidential per the terms of our agreements. However, an internal review of the data shows the ratio of flow rate to electricity production can vary by more than an order of magnitude over any given time period and there is no perceptible difference in the variability of this ratio before and after the implementation of Section 2.C.(2) of the Policy. The discussion below provides some insight into why the implementation of this policy has not resulted in any detectable difference in reducing ocean water intake flows per MWh produced.

Section 7.2 of the AES Redondo Beach Generating Station Implementation Plan, originally submitted to the State Water Resources Control Board on April, 2011, described how the ocean water circulating water pumps at the RBGS are operated under four operating scenarios:

1. Power generation;
2. Startup of a generating unit prior to actual power generation;
3. Shutdown of a generation unit after power generation has ceased; and,
4. Maintaining critical plant systems when generating units are offline, not generating power or in a startup or shutdown mode.

Section 2.C.(2) of the Policy prevents the owners or operators of the RBGS from operating the circulating water pumps except under these specific power generating or critical system maintenance scenarios. The underlying assumption behind this policy is that owners or operators might continue to run their circulating water pumps without an operational justification. The RBGS pumps are electrically powered, non-variable speed pumps which require approximately 300 kW of electricity per hour to run for the smallest pumps and approximately 600 kW per hour for the largest pumps. When the station is generating power, the electricity required to run the pumps is available from the station itself as part of the auxiliary load of the plant. When the station is not generating power, the electricity required to operate the pumps must be purchased from the local utility at a cost of approximately $0.132/kWh, or approximately $40 per hour for the smaller pumps on Units 5 and 6 and almost $80 per hour for the larger pumps on Units 7 and 8. There are two circulating water pumps per unit at RBGS. Operating the circulating water pumps at the RBGS while not generating power can cost over $470 per hour. These costs are, and always have been, enough of an incentive for AES-SL to avoid operating the circulating water pumps when not directly engaged in power generating activities or critical system maintenance. Section 2.C.(2) of the policy has not affected normal operating protocols at the RBGS and, in and of itself, has not resulted in any detectable difference in the ratio of water intake flow, and the megawatt (MW) production at the RBGS.

Furthermore, the ratio of annual, monthly or even daily intake flows to MWh are not constant and are wholly dependent on how the RBGS is dispatched at any given time. AES-SL does not control when or at what load the generating units are dispatched. When the generating units are required to serve system needs, AES-SL is directed to start and run the units at specific load levels and directed to take the units offline when not needed. When a unit is generating power, all of the circulation water pumps for that unit are required for cooling and operate at a constant flow rate, regardless of the power output of the unit. At the RBGS, either unit 7 or 8 could be dispatched at its minimum load and only generate 130 MW and would require two, 117,000

GPM circulation pumps to be in operation. Or the unit could be dispatched at its full output of over 500 MW and require the same number of non-variable speed pumps to be in operation with the same total flow rate. A four-fold difference in electricity production can be realized with the same intake flow. Therefore, it is difficult to detect any difference in the ratio of intake flow volume to MW production over any given time period or before and after the implementation of Section 2.C.(2) of the Policy.

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

Sincerely,

Eric Pendergraft
President
AES Southland

ATTACHMENT 1
PROPOSED PHASED SCHEDULE
IMPLEMENTATION PLAN: ONCE-THROUGH-COOLING WATER POLICY REQUIREMENTS
RETIREMENT AND REPOWERING
AES SOUTHLAND, LLC
(SEE NOTES BELOW)

		Summary			Unit Retirement Date				Total
					2018	2020	2023	2026	
Unit	Repowered w/	New MWs	CAISO Maximum Capacity (Pmax)	MW Delta	4th QTR	4th QTR	4th QTR	4th QTR	
AL1	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	174.6	178.4				174.6	
AL2	-		175.0					175.0	
AL3	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	332.2	-139.9			332.2		
AL4			335.7				335.7		
AL5	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	498.0	30.0		498.0			
AL6	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	495.0	33.0		495.0			
HB1	Combined Cycle Gas Turbine - (3 on 1 configuration)*	469	225.8	17.5		225.8			
HB2			225.8			225.8			
HB3	Combined Cycle Gas Turbine - (3 on 1 configuration)*	470	-	470.0					
HB4			-						
RB5	-	528	178.9	-827.7	175.0	178.9			
RB6	-		175.0						
RB7	Combined Cycle Gas Turbine - (3 on 1 configuration)*		506.0			506.0			
RB8			495.9		495.9				
	Totals	3,579	3,817.6	-238.6	670.9	2,129.3	667.9	349.6	3,818

	Unit COD Date				Total
	2018	2021	2023	2026	
	4th QTR	1st QTR	4th QTR	4th QTR	
AL1		528			
AL2					
AL3		528			
AL4					
AL5			528		
AL6				528	
HB1		469			
HB2	470				
HB3					
HB4					
RB5		528			
RB6					
RB7					
RB8					
	470	2053	528	528	3,579

		Station Generating Capacity			
	Existing CAISO Maximum Capacity (Pmax)	2018	2021	2023	2026
		4th QTR	1st QTR	4th QTR	4th QTR
ALGS	2,010.4	2,010.4	2,073.4	1,933.6	2,112.0
HBGS	451.5	921.5	939.0	939.0	939.0
RBGS	1,355.7	684.8	528.0	528.0	528.0
	3,817.6	3,616.7	3,540.4	3,400.6	3,579.0

Note 1: The proposed phased schedule for the retirement and repowering of AES Southland, LLC's three Generating Stations (Alamitos, Huntington Beach and Redondo Beach) and the proposed electrical generation technology and resulting generation capacity for AES Southland LLC's Generation Stations are subject to change and are contingent upon various factors, including but not limited to: the release of Request for Offers (RFOs) and award of Power Purchase Agreements (PPA from the Inventor-Owned Utilities (IOUs), consistent with and supported by the CPUC led Los Angeles Basin Long-Term Procurement Plan (LTPP) process.

Note 2: Huntington Beach Generating Units 3 and 4 were retired on October 31, 2012 but will remain in service as synchronous condensers until December 2016 (HB3) and December 2017 (HB4)

* 3 on 1 combined cyclet gas turbine configuration refers to three natural gas fired turbines and electric generators combined with a heat recovery steam generator and one steam turbine and electric generator