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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:
Huntington Beach Generating Station

Dear Mr. Howard,

This letter is in response to your December 11, 2012 correspondence requesting additional information for the AES Huntington Beach Generating Station (HBGS) 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 HBGS 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 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 OTC 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 HBGS, 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 and the sale and early retirement of HBGS Units 3 and 4 as power 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 HBGS. AES-SL has already made progress in reducing ocean water intake flows ahead of the required compliance dates 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 specific units. These compliance date extensions are offset by early retirements of other units such as HBGS Units 3 and 4 and Redondo Beach Generating Station Units 6 and 8.

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

1. *AES-SL seeks an extension of compliance schedule to 2022 for units 3 and 4. AES-SL has submitted an application for certification to the CEC to repower the units in two phases. These dates are inconsistent with the dates in the April 1, 2001 filing. Clarification of AES-SL's intent must be provided. Further information shall be submitted to State Water Board staff that supports reasoning for such a proposal, including detailing what progress has been made to date.*

AES-SL did not seek an extension of the compliance schedule for Units 3 and 4 at the HBGS. Our request for an extension of the compliance schedule was for Units 1 and 2. We have assumed this reference to Units 3 and 4 in this context was made in error and the SWRCB had meant to reference Units 1 and 2.

Subsequent to AES-SL's submission of an IP for the HBGS on April 1, 2011, we have refined our project development plan for the replacement of existing OTC generating units and revised our proposed project development schedule. With the 2012 LTPP decision only recently finalized, the proposed project development schedule may change to ensure consistency with state agency planning assumptions and contract awards.

AES-SL intends to replace the OTC generating units at HBGS with dry-cooled natural gas fired combined cycle units which will result in the complete cessation of ocean water intake at the HBGS in compliance with the implementation dates in the current Policy.

A project development schedule was submitted to the CEC as part of our AFC for the Huntington Beach Energy Project (HBEP), however, the schedule in the AFC has been further revised as part of the discovery phase of the CEC's review and a new construction, retirement, demolition, and commercial operation schedule was prepared and submitted to the CEC. The most recent schedule submitted to the CEC projects a commercial operation date (COD) for the first 3-on-1 combined cycle power block at the end of the fourth quarter of 2018 and the second power block to be operational by the end of the second quarter of 2020. With limited procurement of natural gas fired generation authorized by the PUC in the 2012 LTPP cycle, it has become less likely that a contract for the second power block at the HBGS could be executed and approved in time to meet a second quarter COD date. AES-SL's planned retirement and repowering schedule has been attached to this letter as an updated Implementation Plan which shows the retirement of Units 1 and 2 by the end of the fourth quarter of 2020 and a COD of 2021 for the second new 3-on-1 combined cycle power block. As of the date of this letter, AES-SL intends to permanently end all ocean water OTC at the HBGS by the end of 2020 and is no longer seeking an extension of the compliance dates for the HBGS. It should be noted that all schedules and assumptions associated with the development of the HBEP may still change as a result of project revisions required to satisfy Conditions of Certification that may be imposed by the CEC, the inability to secure non-recourse project financing supported by long-term PUC approved contracts, or the adoption of SCAQMD Rule 1304.1.

- 2. As a consequence of its sale of HBGS units 3 and 4, AES-SL was supposed to submit a closure plan to South Coast Air Quality Management District on July 30, 2012. AES-SL also appears to be required to submit a copy of the closure plan to the California Energy Commission in light of the permit conditions from the CEC for HBGS units 3 and 4 as amended most recently. Please submit copies of relevant excerpts from these documents in a revised IP for HBGS units 3 and 4.*

AES Huntington Beach, LLC sold the equipment operated under CEC license 00-AFC-13C, referred to as HBGS Units 3 and 4, to Edison Mission Huntington Beach, LLC, a subsidiary of Edison Mission Energy, LLC. The equipment sold was limited to the boilers, steam turbines, electrical generators, stacks and air pollution control equipment associated with generating Units 3 and 4. AES Huntington Beach, LLC retained title to the land, foundations and all other equipment and shared resources necessary for the operation of the remainder of the generating station, including the ocean water intake, circulation pumps and ocean water outfall.

The CEC approved an order under license 00-AFC-13C for the transfer of ownership of Units 3 and 4 from AES Huntington Beach, LLC to Edison Mission Huntington Beach, LLC on May 4, 2011. Subsequent to the CEC's approval, the SCAQMD issued a facility Permit to Operate to Edison Mission Huntington Beach, LLC for Units 3 and 4, which named AES Huntington Beach, LLC as the legal operator of the equipment. On October 31, 2012 Units 3 and 4 ceased operations as electric utility steam boilers and the SCAQMD Permit to Operate was subsequently retired and surrendered. On November 29, 2012 the CEC approved an order

under license 00-AFC-13C to allow the conversion of electrical generating Units 3 and 4 to synchronous condensers. Neither the CEC license nor the SCAQMD Permit to Operate for Units 3 and 4 required any party to submit a closure plan on July 30, 2012. A closure plan describing the safe and orderly demolition and removal of Units 3 and 4 is required under CEC license 00-AFC-13C in the event the units are permanently retired from service. While these units will no longer combust fuel, produce steam or produce electrical energy, they will continue in service as synchronous condensers to provide voltage support to the electrical transmission system assuming certain consents can be obtained. Since these units remain in service, a closure plan is not yet required and will not be prepared until 12 months prior to their permanent retirement date.

Since Edison Mission Huntington Beach, LLC retired the electric utility steam boilers of Units 3 and 4 to support the start-up of the Walnut Creek Energy Park (a new power plant owned by their parent company Edison Mission Energy, LLC), the SCAQMD required Edison Mission Energy to submit a Retirement Plan to their agency to demonstrate compliance with condition F52.1 of the Walnut Creek Energy, LLC facility Permit to Construct. The requirement to prepare, submit and implement a Retirement Plan for the electric utility steam boilers of Units 3 and 4 is entirely associated with the conditions of the SCAQMD Permit to Construct for the Walnut Creek Energy Park.

While the requirements for submitting and implementing a Retirement Plan for Units 3 and 4 are solely those of a third party and not AES Huntington Beach, LLC, a copy of the Retirement Plan was submitted and docketed with the CEC under the compliance proceeding of license 00-AFC-13C. The Retirement Plan is therefore in the public domain and has been attached to this letter for your reference and convenience. The Retirement Plan for Edison Mission Huntington Beach's Units 3 and 4 provides a detailed description of how the electric utility steam boilers were rendered inoperable as a combustion and electrical generating source. The Retirement Plan does not impact the capability of Units 3 and 4 to operate as synchronous condensers nor does it affect the units' cooling systems.

The conversion of Units 3 and 4 to synchronous condensers is expected to be completed by June 1, 2013. Upon completion, the units will continue to use the ocean water OTC system for critical system maintenance. A synchronous condenser is merely a conversion of the electrical generator into a motor whose shaft is not connected to anything and spins freely. Its purpose is not to convert electric power to mechanical power or vice versa, but to adjust conditions on the electric power transmission grid by supplying or absorbing reactive power (Vars) thereby providing voltage support. Since this will require the spinning of the existing generators as they act as motors, the lube oil and cooling system for the turning gear must remain in operation. This requires continued use of the OTC cooling system, but at substantially lower ocean water volumes than required for power generation. When in operations, the Units 3 and 4 synchronous condensers will require a single 42,000 gallon per minute OTC circulation pump to be in operation as opposed to four circulation pumps needed for power generation. When the synchronous condensers are not in operation, no intake flow is required for the units.

The synchronous condensers are expected to be in service until at least December 2016 (Unit 3) and December 2017 (Unit 4), but this is contingent on annual extensions of the proposed Reliability Must Run contract with the CAISO. After these dates, the OTC system for Units 3 and 4 will be permanently retired and the units demolished to make room for the development of a new 3-on-1 combined cycle power block per the schedule described in our response to request number one.

- 3. Included with the updated IP, please explain in detail how AES-SL plans to acquire the requisite air permits to operate the repowered HBGS 939 megawatts combined cycle units, given the prior sale of its air permits to Edison Mission Energy / Walnut Creek.*

As a point of clarification and to help explain the air permitting path for HBGS, AES-SL did not sell an air permit or emission credits to Edison Mission Energy / Walnut Creek. AES-SL sold an operating electric utility steam boiler and Edison Mission Huntington Beach, LLC applied for and received a new Title V operating permit for Units 3 and 4.

Under SCAQMD Rule 1304(a)(2) the developer of a new power generating unit is exempt from the requirements for providing emission offsets per SCAQMD Rule 1303, if the new generating unit is a replacement of an existing electric utility steam boiler and the new replacement units meet certain technology criteria. The exemption is provided on a megawatt-to-megawatt (MW) basis where the maximum electrical power rating of the new equipment cannot exceed the electrical power rating of the retired source. Thus, Edison Mission Energy was exempt from providing emission offsets for 450 MW of their new Walnut Creek Energy Park plant when they retired Units 3 and 4 and surrendered their Title V air permit. Similarly, AES-SL intends to use Rule 1304(a)(2) to demonstrate compliance with the emission offset requirement of Rule 1303 and will retire Units 6 and 8 at the AES Redondo Beach Generating Station and Units 1 and 2 at HBGS to enable the development of 939 MW of natural gas combined cycle, air cooled generation at HBGS. If regulatory action at the SCAQMD results in a change to Rule 1304(a)(2), either by removing the exemption for providing offsets or by charging exorbitant fees to projects that use this compliance pathway - which would render the proposed repowering of the HBGS uneconomical - AES-SL would be forced to reassess the method and timing of its compliance with the Policy.

AES-SL's planned retirement and repowering schedule has been attached to this letter as an updated Implementation Plan. All replacement generation listed in the updated Implementation Plan would be Track 1 compliant, air cooled natural gas fired combined cycle generation.

- 4. At its September 12-13, 2012 meeting, the California Independent System Operator Board approved negotiations between its staff and AES-SL for installation of synchronous condensers at the retired HBGS units 3 and 4. Please explain in detail how AES-SL plans for converting HBGS units 3 and 4 to synchronous condensers impacts the IP.*

The plans for converting HBGS Units 3 and 4 to synchronous condensers impacts the Implementation Plan for HBGS by allowing AES-SL to accelerate our original retirement and repowering dates and reduce ocean water intake flows substantially in the interim period prior to retirement of all intake flows at HBGS. The reduction in ocean water intake flows at HBGS ahead of the required compliance dates should be considered when evaluating the request for unit specific deadline extensions at AES-SL's Alamitos Generating Station. 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 specific units. These compliance date extensions are offset by early retirements of other units such as HBGS Units 3 and 4 and Redondo Beach Generating Station Units 6 and 8. Details on the dates of synchronous condenser operation and the impact to ocean water intakes is provided above in response to request number 2 and in the attached planned retirement and repowering schedule submitted as an updated Implementation Plan.

5. *An updated implementation plan is required due to the sale of HBGS units 3 and 4 to Edison Mission Energy.*

AES-SL has prepared the attached planned retirement and repowering schedule as an updated Implementation Plan. Additional information provided in response to request numbers 1 and 2 provides further explanation of the status and impact of the sale of HBGS Units 3 and 4.

6. *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 Huntington 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 HBGS 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 HBGS 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 HBGS pumps are electrically powered, non-variable speed pumps which require approximately 400 kWh of electricity per hour to run. 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 \$0.087/kWh, or approximately \$35 per hour per pump. There are two circulating water pumps per unit at HBGS. Operating the circulating water pumps at the HBGS while not generating power can cost over \$280 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 HBGS 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 HBGS.

Furthermore, the ratio of annual, monthly or even daily intake flows to MWh are not constant and are wholly dependent on how the HBGS 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 HBGS, a unit could be dispatched at its minimum load and only generate 20 MW and would require two, 42,000 GPM circulation pumps to be in operation. Or the unit could be dispatched at its full output of over 225 MW and require the same number of non-variable speed pumps to be in operation with the same total flow rate. A ten-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)

Unit	Repowered w/ Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	New MWs	CASSO Maximum Capacity (Pmax)	MW Delta	Unit Retirement Date				Unit COD Date				Existing CASSO Maximum Capacity (Pmax)	Station Generating Capacity			
					2016	2020	2023	2026	2016	2021	2023	2026		2016	2021	2023	2026
AL1	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	174.6	176.4	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
AL2	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	175.0	176.4	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
AL3	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	332.2	-139.9	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
AL4	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	498.0	30.0	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
AL5	Combined Cycle Gas Turbine - (3 on 1 configuration, no duct firing)*	528	495.0	33.0	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
HB1	Combined Cycle Gas Turbine - (3 on 1 configuration)*	469	225.8	17.5	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
HB2	Combined Cycle Gas Turbine - (3 on 1 configuration)*	470	225.8	17.5	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
HB3	Combined Cycle Gas Turbine - (3 on 1 configuration)*	470	178.9	470.0	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
RB6	Combined Cycle Gas Turbine - (3 on 1 configuration)*	528	175.0	-827.7	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
RB7	Combined Cycle Gas Turbine - (3 on 1 configuration)*	528	505.0	495.9	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
RB8	Combined Cycle Gas Turbine - (3 on 1 configuration)*	528	495.9	495.9	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	4th QTR	
Totals					3,676	3,617.6	-238.8	670.9	2,158.3	667.9	248.9	3,610	470	205.3	528	628	3,079

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 Investor-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 cycle 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