



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

April 23, 2015

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

RE: Information Requirements for the Huntington Beach Generating Station

Dear Mr. Howard,

This letter is in response to your February 24, 2014 correspondence requesting additional information for the AES Huntington Beach Generating Station (AES-HB) Implementation Plan (IP). As stated in your letter, you wish to obtain further information and data input to conduct grid reliability analyses to determine the impact on local and system reliability.

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 the AES-HB as well as our two other once-through-cooled (OTC) generating stations located in the Los Angeles basin local reliability area – AES Alamitos (AES-AL) and AES Redondo Beach (AES-RB). Given the uncertainty of these 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 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. 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 timing, generating Units 1 and 2 at AES-HB are fully contracted through May 31, 2018 and will remain in operation at least through that date. Beyond May 31, 2018, there are three factors that will determine the ultimate retirement schedule. Specifically, each unit will be shutdown when one of the following occurs; (1) it is no longer economically practical to operate the units (without new contracts for capacity beyond May 31, 2018 it is unlikely AES would maintain the units to be available for spot market dispatch); (2) the unit needs to shutdown to enable a new replacement unit to begin its commissioning activities¹; or (3) it reaches its OTC Policy compliance date². Since AES-HB was recently awarded a Power Purchase Agreement (PPA) for a nominal 644 MW CCGT with a commercial operations date of May 1, 2020, condition (2) will result in the shutdown of some existing AES-SL units prior to the OTC Policy compliance date. The affected AES-HB unit and the required timing are summarized in Table 1 below which represents an update to the previous IP.

Table 1
AES Huntington Beach Implementation Plan

Unit	Capacity (MWs)	Compliance Approach	Target Retirement Date	Comments
HB 1	225	Retirement	10/31/2019 ¹	Accommodate new AES-HB CCGT
HB 2	225	Retirement	12/31/2020 ²	OTC Policy compliance date

¹Unit must be shutdown no later than 90 days after the first fire of the new AES-HB CCGT to qualify for emission offsets

²Assumes unit remains economic and no extension of the OTC Policy compliance date is granted

The SWRCB's specific questions are addressed below.

2. Does AES plan on further repowering at the HBGS beyond what has been contracted with SCE in its LCR RFO?

AES-SL remains interested in developing additional new generation capacity (gas-fired and/or battery-based energy storage) at its AES-HB site if it can secure a long-term contract and raise the necessary financing. Assuming the PPA for the new 644 MW CCGT is approved by the CPUC and the unit achieves commercial operations, the existing interconnection at AES-HB is limited to approximately 235 MW of additional capacity under CAISO's repowering affidavit process.

3. How will AES achieve compliance in the event that Application A.14-11-012 is not approved?

If the contract is not approved, AES-HB still intends to achieve compliance by shutting down and retiring all OTC units. Under this scenario, assuming it remained economic, Unit 1 could continue to operate until its OTC Policy compliance date rather than being required to shut down October 1, 2019.

¹ It is necessary to shutdown existing generation in order to provide interconnect capacity and access to emission offsets for the new generating unit.

² Absent any extensions from the SWRCB, the AES-SL generating units must comply with the OTC Policy by December 31, 2020.

4. *Is AES still planning to pursue the construction of the second block of combined cycle facility at HBGS?*

As noted above, AES-SL remains interested in constructing additional new generation capacity at AES-HB to supplement the new 644 MW CCGT. The specific size, technology (CCGT, open-cycle peaker, battery storage, etc) and commercial viability will depend on future market conditions, customer need and the ability to secure a long-term contract to facilitate the necessary financing. In addition, assuming the PPA for the new 644 MW CCGT is approved by the CPUC and the unit achieves commercial operations, the existing interconnection at AES-HB is limited to approximately 235 MW of additional capacity under CAISO's repowering affidavit process.

AES-SL intends to amend the California Energy Commission (CEC) license for the new Huntington Beach Energy Project for a change in the generating technology and size of the project to be developed at AES-HB. An amendment to the license will be submitted in the summer of 2015 that will detail a new 644 MW CCGT in place of the 470 MW power block one and 200 MW of open cycle gas turbine peakers in place of power block two.

5. *Do the plans for Policy compliance assume the PPA with Southern California Edison (SCE) will be approved? How will the plans for compliance change in the event that this contract is not approved by the CPUC?*

Yes, the compliance plans for AES-HB assume the PPA is approved. As noted above, if the contract is not approved, AES-HB still intends to achieve compliance by shutting down and retiring all OTC units.

6. *Will AES request an amendment to its AFC filing at the CEC based on the latest SCE selection of AES facilities for its LCR RFO? What is the timing for filing an amendment?*

Yes, as indicated above AES-SL will be filing an application to amend its license and CEC decision for the Huntington Beach Energy Project. The amendment is expected to be filed in the summer of 2015.

7. *Please provide an updated repowering plan, including a detailed list of generation technologies, and capacity by unit. Indicate how this will be affected by the approval or denial of AES' pending application to contract 644 MW of HBEP with SCE.*

With respect to the repowering plan, the new CCGTs at AES-AL (640 MW) and AES-HB (644 MW), and the 100 MW battery energy storage system at AES-AL are the only new projects that have secured long term contracts and have a high probability of being constructed.

While AES-SL has a desire to construct additional new generating resources (gas-fired and battery-based) at all three of its existing sites, with the present market structure it will only do so if a long-term contract can be obtained. This almost always requires a CPUC procurement authorization and successful participation in a competitive solicitation. Given the uncertainty associated with these processes, AES-SL does not think it is prudent to speculate about what additional generating resources may be constructed outside of those that have already been awarded contracts.

Nevertheless, AES-SL is actively progressing an AFC to the CEC for a 496 MW 3x1 CCGT at AES-RB and will be supplementing the Alamos Energy Center AFC to change the size and technology of the generation capacity to 1,040 MW made up of 4 LMS 100 open cycle gas turbine peaker units and a 2x1

CCGT at AES-AL, and will be amending the CEC decision for the Huntington Beach Energy Project to change to 2 LMS 100 units and a 2x1 CCGT at AES-HB. In addition, AES will apply to the City of Long Beach for a Conditional Use Permit to construct 300 MW of battery energy storage. Assuming AES-SL receives the requisite approvals and permits, it will be standing by ready to meet any future resource needs with either new gas-fired generation or battery energy storage.

With respect to generation technologies, Table 1 summarizes the existing capacity by unit at AES-HB. The existing generating units are natural gas-fired conventional steam turbine units that utilize once-through-cooling. If the pending Huntington Beach PPA with SCE is denied, Unit 1 at AES-HB will be able to continue operating until it reaches its OTC Policy compliance date, assuming it remains economic.

8. If there are non-OTC units at a generating facility, indicate if compliance with the OTC policy will, in any manner, effect the operating of the non-OTC unit. If so, how?

This question does not apply to AES-HB. There are no non-OTC units that are still in operation.

AES-SL continues to take every possible action to move both the contracting and permitting process 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. If there are delays in the CEC amendment process for HBEP, contracts are not approved by the CPUC, future procurement authorizations are limited or postponed, or other planned transmission and generating capacity upgrades by the local utility are not completed or delayed, then our current proposed schedule will need to be further adjusted and other options considered, including the potential extension of OTC compliance deadlines for existing units. 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.

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