



State Water Resources Control Board

December 30, 2022

Mr. Mark Miller
Market Business Leader, AES Southland
690 North Studebaker Road
Long Beach, CA 90803

Dear Mr. Miller:

RE: INVOICE FOR THE 2020-2021 INTERIM MITIGATION PERIOD FOR HUNTINGTON BEACH GENERATING STATION - ONCE-THROUGH COOLING POLICY

This letter serves as an invoice for Huntington Beach Generating Station's interim mitigation payment for the operating period of October 1, 2020, through September 30, 2021 (2020-2021 interim mitigation period). The final determination calculating the interim mitigation payment is included as Attachment A.

The State Water Resources Control Board's (State Water Board) Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Once-Through Cooling or OTC Policy) requires owners or operators of existing power plants to implement measures to mitigate interim impingement and entrainment impacts resulting from their cooling water intake structures. The interim mitigation period commenced on October 1, 2015, and continues up to and until owners or operators achieve final compliance with the OTC Policy. Section 2.C(3) of the OTC Policy provides options for demonstrating compliance with the interim mitigation requirements.

As stated in the 2015-2016 Final Determination for Huntington Beach Generating Stationⁱ, AES Southland elected to comply with interim mitigation requirements in Sections 2.C(3)(a) and 2.C(3)(b) of the OTC Policy. Under these options, AES Southland demonstrates compliance with interim mitigation by compensating for impingement and entrainment impacts through existing mitigation efforts and providing funding to the Ocean Protection Council or State Coastal Conservancy to fund appropriate mitigation projects.

The State Water Board calculated the interim mitigation payment for the 2020-2021 interim mitigation period using information provided by AES Southland in its May 26, 2022 information response letter. The annual interim mitigation payment is the sum of three components: an entrainment payment, an impingement payment, and a

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

management and monitoring payment. The interim mitigation payment for Huntington Beach Generating Station for the operating period of October 1, 2020, through September 30, 2021, is \$129.76.

AES Southland has 60 days from receipt of this letter to make this payment to the Natural Resources Agency's Ocean Protection Council. When submitting this payment, include a cover letter that identifies the National Pollution Discharge Elimination System number for Huntington Beach Generating Station and copy Karen Mogus, Deputy Director of the Division of Water Quality at the State Water Board. Please make the check payable to the Natural Resources Agency and send to:

California Natural Resources Agency
Attn: Jenn Eckerle
715 P Street, 20th Floor
Sacramento, CA 95814
Reference Account: Ocean Protection Trust Fund

If you have questions regarding this invoice letter, please contact Sami Michishita at (916) 327-8520 (Sami.Michishita@waterboards.ca.gov), or Katherine Walsh at (916) 445-2317 (Katherine.Walsh@waterboards.ca.gov).

Sincerely,



Eileen Sobeck
Executive Director

Enclosure:

Attachment A – Final Determination for Huntington Beach Generating Station

cc via email:

Ms. Jenn Eckerle, Jenn.Eckerle@resources.ca.gov
Mr. Weikko Wirta, Weikko.Wirta@aes.com
Ms. Karen Mogus, Karen.Mogus@waterboards.ca.gov
Ms. Katherine Walsh, Katherine.Walsh@waterboards.ca.gov
Mr. Jonathan Dolan, Jonathan.Dolan@waterboards.ca.gov
Ms. Sami Michishita, Sami.Michishita@waterboards.ca.gov
Ms. Jayne Joy, Jayne.Joy@waterboards.ca.gov

ⁱ [2015-2016 Final Determination for Huntington Beach Generating Station.](#)

Attachment A – Final Determination for Huntington Beach Generating Station

**FINAL DETERMINATION TO APPROVE MITIGATION MEASURES
FOR THE WATER QUALITY CONTROL POLICY ON THE USE OF
COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING:**

**HUNTINGTON BEACH GENERATING STATION
OCTOBER 1, 2020, THROUGH SEPTEMBER 30, 2021**

Interim Mitigation Requirements and Determinations

The State Water Resources Control Board's (State Water Board) Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (also known as the Once-Through Cooling or OTC Policy) requires owners or operators of existing power plants to implement measures to mitigate interim impingement and entrainment impacts resulting from their cooling water intake structures. The interim mitigation period commenced on October 1, 2015 and continues up to and until owners or operators achieve final compliance with the OTC Policy.

The State Water Board approved Huntington Beach Generating Station's continued request to comply with a combination of the interim mitigation measures described in Section 2.C(3)(a), Section 2.C(3)(b), and Section 2.C(3)(e) of the OTC Policy in the Final Determination for the October 1, 2019 to September 30, 2020 interim mitigation period (2019-2020 Final Determination).

In the sections below, the State Water Board calculated Huntington Beach Generating Station's interim mitigation payment for October 1, 2020, through September 30, 2021 (also known as the 2020-2021 determination period). This calculation is consistent with the methods and calculations applied in the 2019-2020 Final Determination. Consistent with Resolution No. 2015-0057ⁱ and the recommendations in the Expert Review Panel's Final Reportⁱⁱ, the interim mitigation payment is comprised of an entrainment payment, an impingement payment, and a management and monitoring payment.

Interim Mitigation Payment Calculation for Huntington Beach Generation Station

Entrainment Payment Calculation

To calculate the portion of the interim mitigation payment to offset entrainment impacts, the State Water Board used the default average cost of entrainment determined in the Expert Review Panel's Final Report. Consistent with Resolution No. 2015-0057 and the Expert Review Panel's Final Report, the State Water Board used a three percent escalator to update the average cost of entrainment from the 2019-2020 Final Determination to 2021 dollars to account for inflation. The resulting average default entrainment cost for October 1, 2020, through September 30, 2021, increased from \$5.33 per million gallons (MG) to \$5.49/MG:

$$(\$5.33/\text{MG} \times 0.03) + \$5.33/\text{MG} = \$5.49/\text{MG}$$

In its May 26, 2022 letter, AES Southland provided the intake volume for Units 1 and 2 for the 2020-2021 determination period of 26,856.72 MG. The State Water Board verified the intake volume with the data submitted in the National Pollution Discharge Elimination System permit monitoring reports for Huntington Beach Generating Station.

Since 2006, the California Energy Commission's (CEC) license and order to operate for Huntington Beach has required AES Southland to fund the improvement and preservation of 66.8 acres of area to mitigate the power plant's OTC impacts. This area was determined through the habitat production foregone method to calculate impact of annual entrainment and was based on a previous operational intake flow of 126,775 MG per day or a total annual volume of 46,272.875 MG. Based on its license and requirements to mitigate for OTC impacts, AES Southland made a one-time payment of \$5,511,000 into a trust account managed by the Center for Natural Lands Management.

Because the original operating license was valid through 2010, the CEC revisited and granted an extension of Huntington Beach's operating license through 2020. This extension required that AES provide yearly maintenance funding for the Huntington Beach Wetlands, as well as an additional \$20,000 per year from 2012 to 2018 for annual maintenance and monitoring activities as deemed necessary by the Huntington Beach Wetlands Conservancy. The annual maintenance and monitoring payments increased to \$75,000 per year starting January 1, 2019, and will continue up until Huntington Beach's CEC license expiration.

The State Water Board approved to provide existing mitigation credit to entrainment payments since the 2015-2016 operating years for the original purchase and maintenance of the Huntington Beach Wetlands under the CEC license mitigation requirements because it met the conditions of Section 2.C(3)(a) of the OTC Policy and the mitigated wetlands continue to provide fish and invertebrate species productivity.

On September 1, 2020, the State Water Board amended the OTC Policy to extend Huntington Beach's compliance date from December 31, 2020, to December 31, 2023, based on the recommendations of the Statewide Advisory Committee on Cooling Water Intake Structure (SACCWIS). The CEC granted Huntington Beach a license to continue operating to reflect the compliance date extension that still includes annual payments of \$75,000 to the Huntington Beach Wetlands Conservancy for maintenance and monitoring activities. Consistent with previous determinations, total intake volume was refined to account for existing mitigation efforts pursuant to Section 2.C(3)(a) of the OTC Policy, resulting in a reduction of the total intake volume by 46,272.875 MG.

To calculate the entrainment payment, the State Water Board multiplied the refined intake volume by the updated average default cost of entrainment:

$$\$5.49/\text{MG} \times (26,856.72 \text{ MG} - 46,272.875 \text{ MG}) = \$0.00$$

Impingement Payment Calculation

In its May 26, 2022 letter, AES Southland provided an estimate of fish impingement biomass for Units 1 and 2 for the 2020-2021 determination period of 135.168 pounds. AES Southland calculated its estimate of fish impingement by using the flow for this interim mitigation period and an estimated impingement rate based on the final three years of impingement data collection. AES Southland also estimated a separate heat impingement rate based on average heat impingement rates measured in the final three years of impingement data collected to account for one heat treatment performed on October 6, 2020. The State Water Board calculated the impingement payment using the estimated total pounds of fish impinged multiplied by the average indirect economic value of the fisheries as determined in the Expert Review Panel's Final Report of \$0.80 per pound:

$$\$0.08/\text{pound} \times (0.810 + 134.358 \text{ pounds}) = \$108.13$$

Management and Monitoring Payment Calculation

The State Water Board calculated the management and monitoring payment by taking twenty percent of the sum of the entrainment and impingement payments:

$$0.20 \times (\$0.00 + \$108.13) = \$21.63$$

State Water Board's Final Determination for Huntington Beach Generating Station

Based on the sum of the entrainment, impingement, and management and monitoring payment calculations, the total payment to fulfill the interim mitigation obligation for AES Southland's Huntington Beach Generating Station for the interim mitigation period of October 1, 2020, to September 30, 2021, is \$129.76.

$$\$0.00 + \$108.13 + \$21.63 = \$129.76$$

ⁱ State Water Board Resolution No. 2015-0057.

<https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0057.pdf>

ⁱⁱ Final Report from the Expert Review Panel.

<https://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/docs/erp_intake052512.pdf>