



---

## State Water Resources Control Board

February 27, 2024

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

Dear Mr. Miller:

**RE: INVOICE FOR THE 2021-2022 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, 2021 through September 30, 2022 (2021-2022 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 Station<sup>i</sup>, 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 2021-2022 interim mitigation period using information provided by AES Southland in its March 24,

---

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

2023 information response letter. The annual interim mitigation payment is the sum of three components: an entrainment payment, an impingement payment, and a management and monitoring payment. The interim mitigation payment for Huntington Beach Generating Station for the operating period of October 1, 2021 through September 30, 2022 is \$169.44.

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 Pollutant 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, 20<sup>th</sup> Floor  
Sacramento, CA 95814  
Reference Account: Ocean Protection Trust Fund

If you have questions regarding this invoice letter, please contact Jonathan Dolan at (916) 323-0880 ([Jonathan.Dolan@waterboards.ca.gov](mailto:Jonathan.Dolan@waterboards.ca.gov)), or Kat Faick at (916) 445-2317 ([Kat.Faick@waterboards.ca.gov](mailto:Kat.Faick@waterboards.ca.gov)).

Sincerely,



Eric Oppenheimer  
Executive Director

Enclosure:

Attachment A – Final Determination for Huntington Beach Generating Station

cc via email:

Ms. Jenn Eckerle, [Jenn.Eckerle@resources.ca.gov](mailto:Jenn.Eckerle@resources.ca.gov)  
Mr. Weikko Wirta, [Weikko.Wirta@aes.com](mailto:Weikko.Wirta@aes.com)  
Ms. Barbara Ross, [Barbara.Ross@aes.com](mailto:Barbara.Ross@aes.com)  
Ms. Karen Mogus, [Karen.Mogus@waterboards.ca.gov](mailto:Karen.Mogus@waterboards.ca.gov)  
Ms. Kat Faick, [Kat.Faick@waterboards.ca.gov](mailto:Kat.Faick@waterboards.ca.gov)  
Mr. Jonathan Dolan, [Jonathan.Dolan@waterboards.ca.gov](mailto:Jonathan.Dolan@waterboards.ca.gov)  
Mr. Stephen Randall, [Stephen.Randall@waterboards.ca.gov](mailto:Stephen.Randall@waterboards.ca.gov)  
Ms. Jayne Joy, [Jayne.Joy@waterboards.ca.gov](mailto:Jayne.Joy@waterboards.ca.gov)

**Attachment A – Final Determination for Huntington Generating Station**

**FINAL 2021 – 2022 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, 2021, THROUGH SEPTEMBER 30, 2022**

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, 2020, to September 30, 2021 interim mitigation period (2020-2021 Final Determination).

In the sections below, the State Water Board calculated Huntington Beach Generating Station's interim mitigation payment for October 1, 2021, through September 30, 2022 (also known as the 2021-2022 determination period). This calculation is consistent with the methods and calculations applied in the 2020-2021 Final Determination. Consistent with Resolution No. 2015-0057<sup>ii</sup> and the recommendations in the Expert Review Panel's Final Report<sup>iii</sup>, 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 2020-2021 Final Determination to 2022 dollars to account for inflation. The resulting average default entrainment cost for October 1, 2021, through September 30, 2022, increased from

---

<sup>ii</sup> [Resolution No. 2015-0057](#)

<sup>iii</sup> [Expert Review Panel's Final Report](#)

\$5.49 per million gallons (MG) to \$5.65/MG:

$$(\$5.49/\text{MG} \times 0.03) + \$5.49/\text{MG} = \$5.65/\text{MG}$$

In its March 24, 2023 letter, AES-Southland provided the intake volume for Units 1 and 2 for the 2021-2022 determination period of 24,320.39 MG. The State Water Board verified the intake volume with the data submitted in the National Pollutant 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 Generating Station's operating license through 2020. This extension required that AES-Southland 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 continue up until at least December 31, 2023.

Since the 2015-2016 operating period, the State Water Board approved mitigation credit for AES-Southland's purchase and maintenance of the Huntington Beach Wetlands. This credit was provided 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 enhance fish and invertebrate species productivity.

On September 1, 2020, the State Water Board amended the OTC Policy to extend Huntington Beach Generating Station's compliance date from December 31, 2020, to December 31, 2023, to support system-wide grid reliability. On August 15, 2023, the State Water Board amended the OTC Policy again, extending Huntington Beach Generating Station's compliance date through December 31, 2026, to allow for participation in the state-wide Electricity Supply Strategic Reliability Reserve Program. The CEC granted Huntington Beach Generating Station a license to continue operating to reflect the compliance date extension, and the license still requires annual payments of \$75,000 to the Huntington Beach Wetlands Conservancy for maintenance and monitoring activities through at least December 31, 2023. Consistent with previous determinations, the 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:

$$\$5.65/\text{MG} \times (24,320.39 \text{ MG} - 46,272.875 \text{ MG}) = \$0.00$$

On April 14, 2023, AES-Southland provided a letter to the State Water Board indicating that they will no longer seek mitigation credits for Huntington Beach Generating Station's entrainment interim mitigation payment beyond the 2021-2022 Interim Mitigation Period. Therefore, Huntington Beach Generating Station will be subject to the full cost of intake water volume used for cooling purposes from the 2022-2023 determination period until final compliance.

#### *Impingement Payment Calculation*

In its April 20, 2023 letter, AES-Southland provided an estimate of fish impingement biomass for Units 1 and 2 for the 2021-2022 determination period of 176.497 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, which amounted to 175.703 pounds. 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 April 26, 2022, which amounted to 0.794 pounds. 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:

$$\$0.80/\text{pound} \times (0.794 \text{ pounds} + 175.703 \text{ pounds}) = \$141.20$$

#### *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:

$$0.20 \times (\$0.00 + \$141.20) = \$28.24$$

#### 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, 2021, to September 30, 2022, is \$169.44.

$$\$0.00 + \$141.20 + \$28.24 = \$169.44$$