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## 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 ALAMITOS GENERATING STATION - ONCE-THROUGH COOLING POLICY**

This letter serves as an invoice for Alamos 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 Alamos Generating Station<sup>i</sup>, AES Southland elected to comply with interim mitigation requirements in Section 2.C(3)(b) of the OTC Policy. Under this option, AES Southland demonstrates compliance with the interim mitigation requirement by 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, 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 Alamos

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

Generating Station for the operating period of October 1, 2021 through September 30, 2022 is \$427,268.60.

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 Alamitos 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 Alamitos 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. Susana Arredondo, [Susana.Arredondo@waterboards.ca.gov](mailto:Susana.Arredondo@waterboards.ca.gov)

**Attachment A – Final Determination for Alamitos 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:**

**ALAMITOS 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 Alamitos Generating Station's continued request to comply with the interim mitigation measures described in 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 (2021-2022 Final Determination).

In the sections below, the State Water Board calculated Alamitos 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 2021-2022 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>, each interim mitigation payment is comprised of an entrainment payment, an impingement payment, and a management and monitoring payment.

Interim Mitigation Payment Calculation for Alamitos 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 then used a three percent escalator to update the average cost of entrainment from the 2021-2022 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

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<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 May 8, 2023 letter, AES-Southland provided the intake volume for Units 3, 4, and 5 for the 2021-2022 determination period of 63,018 MG. The State Water Board verified the intake volume with the data submitted in the National Pollutant Discharge Elimination System permit monitoring reports for Alamitos Generating Station.

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

$$\$5.65/\text{MG} \times 63,018 \text{ MG} = \$356,051.70$$

#### *Impingement Payment Calculation*

In its May 8, 2023 letter, AES-Southland provided an estimate of fish impingement biomass for Units 3, 4, and 5 for the 2021-2022 determination period of 6.843 pounds. AES-Southland calculated its estimate of fish impingement by using the flow for this interim mitigation period and impingement data collected during the month of June 2022. The State Water Board calculated the impingement payment using the calculated 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:

$$\$0.80/\text{pound} \times 6.843 \text{ pounds} = \$5.47$$

#### *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:

$$0.20 \times (\$356,051.70 + \$5.47) = \$71,211.43$$

#### State Water Board's Final Determination for Alamitos 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 Alamitos Generating Station for the interim mitigation period of October 1, 2021, to September 30, 2022, is \$427,268.60.

$$\$356,051.70 + \$5.47 + \$71,211.43 = \$427,268.60$$