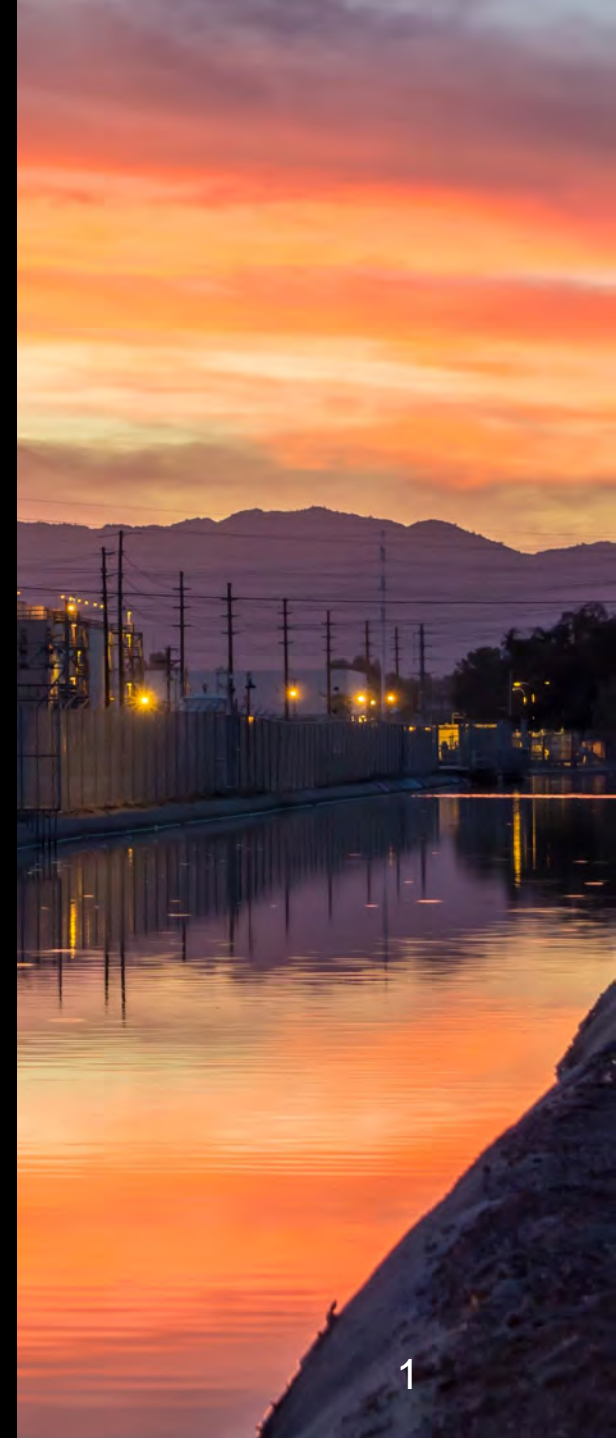


# 2022 Special Report of the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS)

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Inter-Agency Working Group  
September 2022



# Purpose and Overview

- The SACCWIS advises the State Water Resources Control Board (State Water Board) on the implementation of the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (“Once-Through Cooling” or “OTC Policy”) compliance schedule to ensure grid reliability.
- The purpose of this meeting is to consider approving the Draft 2022 Special Report of the SACCWIS (Draft SACCWIS Report).

# Draft SACCWIS Report

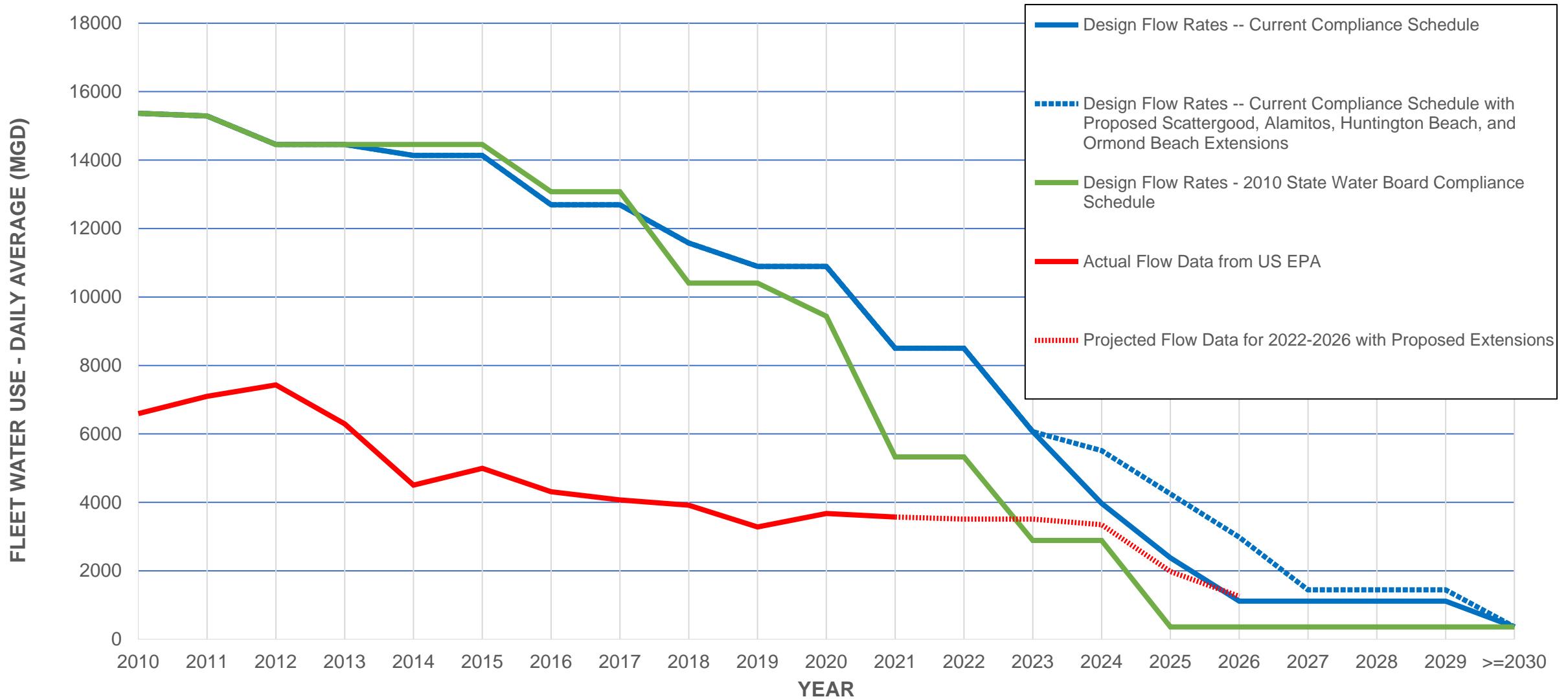
- Status of OTC Policy compliance and water use
- Grid resource and infrastructure planning updates
- SACCWIS' compliance date extension recommendation for Alamitos, Huntington Beach, and Ormond Beach generating stations
- Los Angeles Department of Water and Power's (LADWP) compliance date extension request for Scattergood Generating Station
- Recommendations and next steps

# OTC Policy Compliance Schedule

- Applied to 19 power plants:
  - 11 in full compliance
  - 8 on track to achieve full compliance
- Recent Compliance Date Extensions:
  - OTC Policy amended by the State Water Board in 2020 and 2021
  - Based on SACCWIS' recommendations to address statewide grid reliability needs
  - Extended the compliance dates of Alamitos, Huntington Beach, Ormond Beach, and Redondo Beach Generating Stations through December 31, 2023



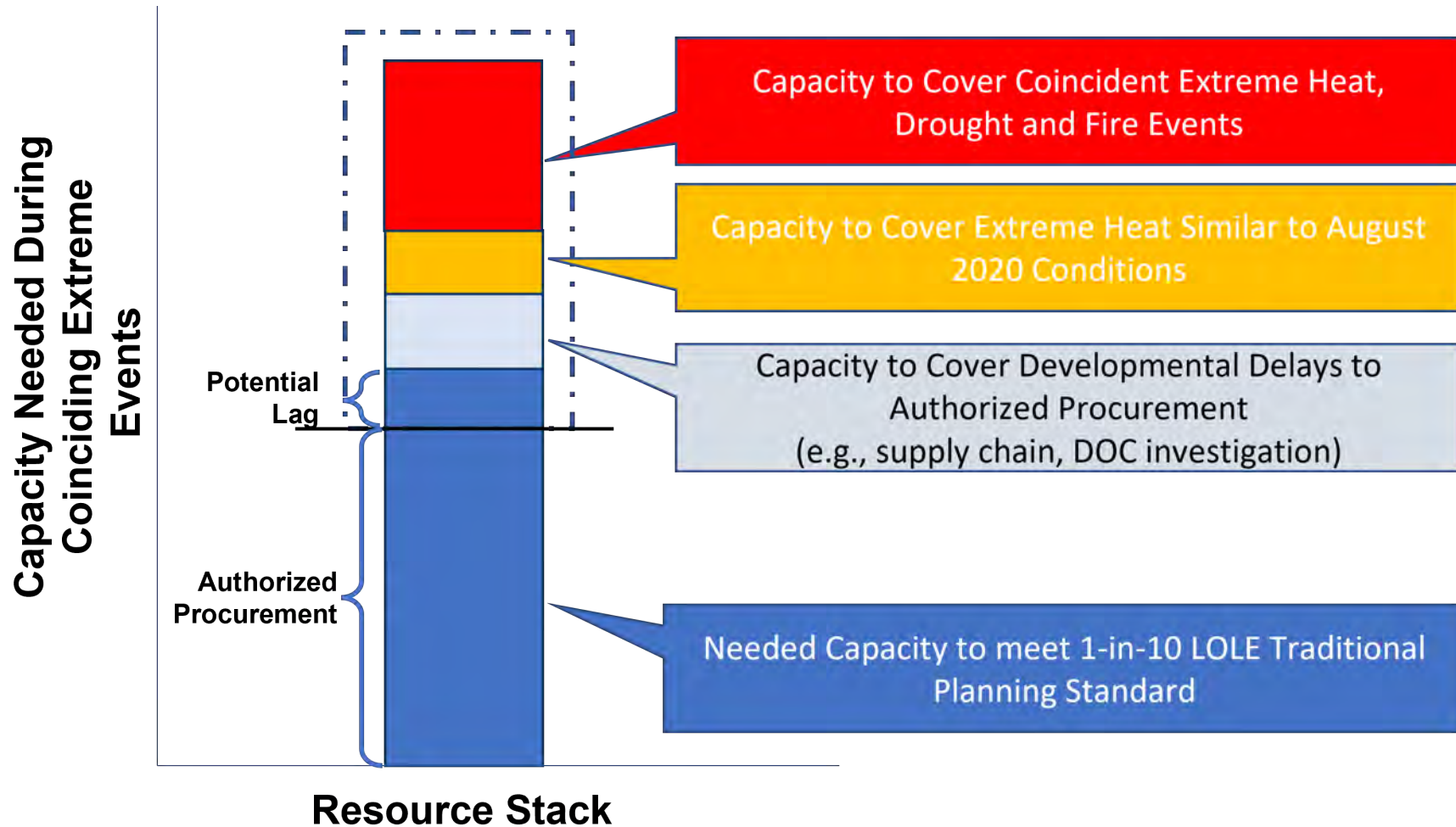
# Historic and Projected Water Use by the OTC Fleet



## Timeline of Events (CAISO Balancing Authority Area)

- **March 2022:** SACCWIS adopts the Draft SACCWIS Report
- **May 2022:** California Energy Commission (CEC) conducts a public workshop on reliability. The California Public Utilities Commission (CPUC), CEC, and California Independent System Operator (CAISO):
  - Present Updated Grid Reliability Analysis with a focus on Summer 2022 and 2025.
  - Determine additional capacity up to 10,000 MW could be needed during a coinciding extreme event.
- **June 2022:** Governor signs Assembly Bill 205, creating the Electricity Supply Strategic Reliability Reserve (Strategic Reserve):
  - Whereby Department of Water Resources will manage an emergency contingency reserve with resources available for extreme events.
  - Includes extending the operations of power plants currently scheduled for retirement.

# May 2022 CEC Reliability Workshop: Reliability Impacts & Capacity Needs



# May 2022 CEC Reliability Workshop: Estimated Impact on Energy Reliability

Issue	2022	2025
Lag in incorporation of updated demand forecasts and policy goals in procurement targeting 1-in-10 traditional planning metric	1,700 Megawatts (MW)	1,800 MWs
Extreme weather and fire risks to energy assets not completely captured in a 1-in-10 traditional planning efforts	4,000 – 5,000 MWs	
Project Development Delay Scenarios (estimated)	600 MWs	1,600 – 3,800 MWs

***In total, the risk in a coincidental situation could be 7,000 MW in 2022 & 10,000 MW in 2025.***



# New Procurement Ordered by the CPUC

- CPUC assesses whether projected resources are sufficient to meet future demand through the Integrated Resource Planning (IRP) Process.
  - IRP is a successor to the Long-Term Procurement Plan (LTPP) based on the requirements of Senate Bill 350 and integrates reliability concerns with the need to procure to meet greenhouse gas reduction goals.
- The planned retirement of OTC plants was incorporated into the analysis of resource needs and has been updated continuously to account for progress and changing retirement deadlines.

	2021	2022	2023	2024	2025	2026	Total
<b>IRP Procurement "Near Term" D.19-11-016 (Nov 7, 2019)</b>	1,650 MW NQC by Aug 1	825 MW NQC by Aug 1	825 MW NQC by Aug 1	n/a	n/a	n/a	<b>3,300 MW Net Qualifying Capacity (NQC)</b>
<b>IRP Procurement "Mid Term" D.21-06-035 (June 24, 2021)</b>	n/a	n/a	2,000 MW NQC by Aug 1	6,000 MW NQC by June 1	1,500 MW NQC by June 1	2,000 MW NQC by June 1	<b>11,500 MW NQC</b>
<b>TOTAL NEW BUILD</b>	1,650						<b>14,800 MW NQC</b>

# New Procurement Challenges

- Based on projects completed to date and projects under contract, the ordered procurement appears to be on track through Aug 1, 2023.
- Not all of the 7,500 MW for 2024 and 2025 are under contract, and it may be difficult to contract with sufficient, viable projects.
- The 2,000 MW of long lead time resources ordered for 2026 are facing significant challenges.

## Barriers to Project Development include:

1. Supply chain disruptions, especially affecting solar and storage projects
2. Interconnection and transmission for new projects, especially (a) getting the 6,000 MW of 2024 resources interconnected and (b) getting transmission built to support 2,000 MW of 2026 long lead time resources.
3. Permitting by local agencies for issues such as storage project fire suppression.

# Assembly Bill (AB) 205 – The Strategic Reserve



## Strategic Electricity Reliability Reserve (AB 205)



**\$2.4 Billion**

**Strategic Reliability  
Infrastructure Assets**



**\$700 Million**

**Distributed Electricity  
Backup Assets**



**\$295 Million**

**Demand Side  
Grid Support**



**\$3.4 BILLION TOTAL**

\*As of September 2022

# Alternatives for SACCWIS Consideration – CAISO Balancing Authority Area

- **Alternative A1 (Recommended):** Extend Alamitos Units 3, 4, and 5; Huntington Beach Unit 2; and Ormond Beach Units 1 and 2 for three years from December 31, 2023, through December 31, 2026.
  - Adds 2,854 MW in capacity to the Strategic Reserve Program to be used during extreme events to support system-wide grid reliability concerns
- **Alternative A2:** Extend Alamitos Units 3, 4, and 5; Huntington Beach Unit 2; Ormond Beach Units 1 and 2, **and Redondo Beach Units 5, 6, and 8** for three years from December 31, 2023, through December 31, 2026.
  - Provides the greatest amount of capacity from OTC power plants within the CAISO Balancing Authority Area, but potential land use and Department of Water Resources contracting challenges with Redondo
- **Alternative A3:** No Action – Keep current retirement schedule.
  - Highest risk of exposure to brown-outs and black-outs.

# Alternative A2 Revision

## **Alternative A2 - Extend Alamitos, Huntington Beach, Ormond Beach, and Redondo Beach for Three Years.**

In this alternative, the SACCWIS would recommend that the State Water Board extend the OTC Policy compliance dates for all existing OTC power plants in the CAISO BAA – Alamitos, Huntington Beach, Ormond Beach, and Redondo Beach – for three years, from December 31, 2023, to December 31, 2026. This alternative would maximize, at roughly 3,688 MW, the existing OTC capacity available to meet mid-term reliability needs within the Strategic Reserve.

This alternative provides the greatest amount of capacity from OTC power plants within the CAISO BAA. However, Redondo Beach has land use challenges that would complicate extending its OTC Policy compliance date; specifically for example, the property upon which the power plant is located is no longer owned by its operator as of March 2020, and the owner is currently leasing the land through 2023. There are also covenants resulting from the previous sale of the property that would likely may result in litigation should the compliance date be extended, and may limit AES' ability to operate the power plant beyond 2023.<sup>1</sup> These circumstances would likely complicate contracting with DWR for the purposes of the Strategic Reserve.

1. The State Water Board received a written comment on September 29, 2022, from the site owner of Redondo Beach submitting new information for the SACCWIS' consideration in support of extending the facility's compliance date and stating there are no legal impediments to the continued operation of Redondo Beach.

Draft SACCWIS  
Recommendation  
– CAISO  
Balancing  
Authority Area

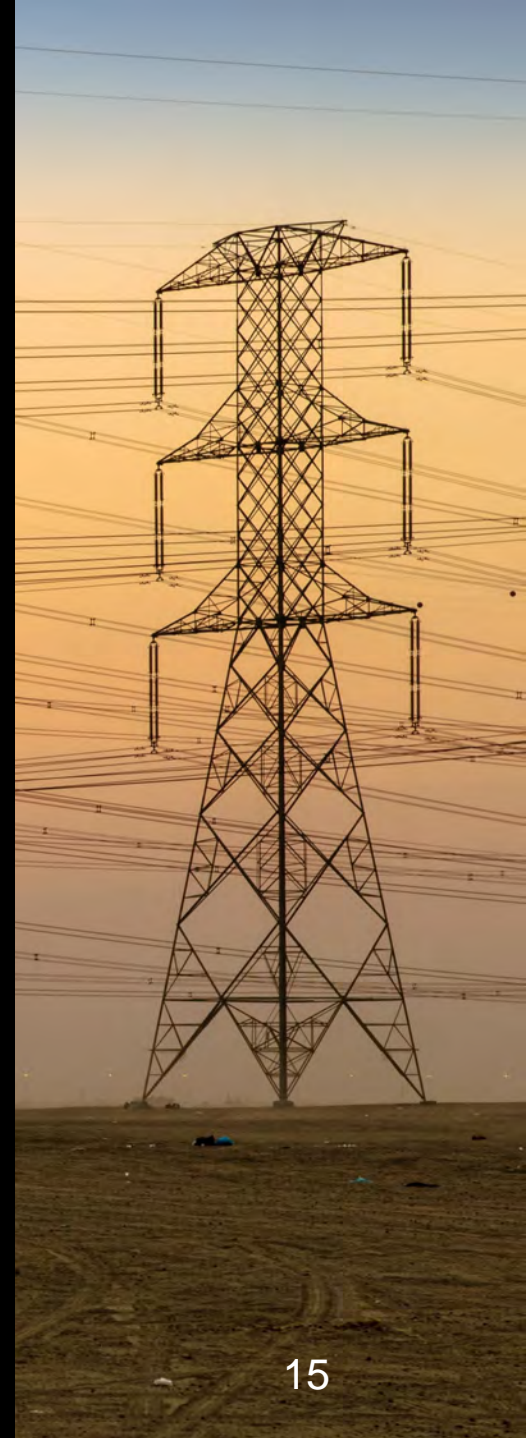
***SACCWIS recommends the State Water Board amend the OTC policy to extend the compliance dates for Alamitos Units 3, 4, and 5; Huntington Beach Unit 2; and Ormond Beach Units 1 and 2 for three years from December 31, 2023, through December 31, 2026.***

- This would add 2,854 MW in capacity to the Strategic Reserve Program for use during extreme events to support system-wide grid reliability concerns.
- Additional Considerations:
  - Alamitos and Huntington Beach have existing, co-located non-OTC units that will continue operating regardless of the planned OTC unit retirement. Extending the operation of these power plants will not result in significant land use changes.
  - Does not include a recommendation to extend the OTC policy compliance date for Redondo Beach, recognizing the land use challenges that may be associated with the power plant's continued operations.
  - Ormond Beach has received preliminary support from Oxnard City Manager for continued operations, but agreement must be reviewed by Oxnard City Council

Alternatives for SACCWIS  
Consideration: LADWP  
Balancing Authority Area

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- **Alternative B1 (Recommended):** Support extending the OTC compliance date for Scattergood for five years until December 31, 2029
- **Alternative B2:** Oppose extending the OTC compliance date for Scattergood for five years until December 31, 2029



# Draft SACCWIS Recommendation – LADWP Balancing Authority Area

- Alternative B1: The SACCWIS supports the LADWP's request to the State Water Board to extend the OTC Policy compliance date of Scattergood Generating Station Units 1 and 2 for five years, from December 31, 2024, to December 31, 2029, to support local reliability.



# Regulatory Requirements - Water Quality

- State Water Board would likely consider an OTC Policy amendment in second half of 2023.
- Alamitos:
  - National Pollutant Discharge Elimination System (NPDES) permit expires December 31, 2025
  - Time Schedule Order [TSO, sets interim limits for temperature, total residual chlorine, copper, nickel, Bis(2-ethylhexyl)phthalate, enterococcus, and total suspended solids] expires December 31, 2023.
- Huntington Beach:
  - NPDES permit expires December 31, 2025.
- Ormond Beach:
  - NPDES permit expires December 31, 2025.
- Scattergood:
  - The LA Regional Water Board administratively extended Scattergood's NPDES permit after receiving a Report of Waste Discharge from the LADWP on March 18, 2021. The terms and conditions of the order continue to be in full effect pending action on a new/revised permit.

# Air Quality Review Under Extension

- California Air Resources Board staff coordinates with air districts to identify requirements related to permitting and current/future rule development in the context of OTC compliance date extension proposals
- Permitting
  - Alamitos, Huntington Beach, Ormond Beach will need to follow the Title V permit renewal process; units may continue operating in accordance with their permits and any future applicable regulatory requirements
- New/Revised Rules
  - South Coast Air Quality Management District (AQMD) Rules 1135 and 429.2 allow limited-term exemptions for OTC units that will retire by 2029
  - South Coast AQMD will amend New Source Review rules as part of the Regional Clean Air Incentives Market (RECLAIM) transition; this may impact future projects that would replace OTC units with other equipment

A wide-angle photograph of a deep blue ocean with small, choppy waves. The horizon is visible in the distance, and the sky is filled with soft, grey clouds. The overall mood is calm but slightly somber.

Questions?