



2025 Report of the Statewide Advisory Committee on Cooling Water Intake Structures (SACCCWIS)

Inter-Agency Working Group
March 21, 2025



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 2025 Report of the SACCWIS (Draft SACCWIS Report), which does not presently recommend any compliance date extensions.



Draft SACCWIS Report

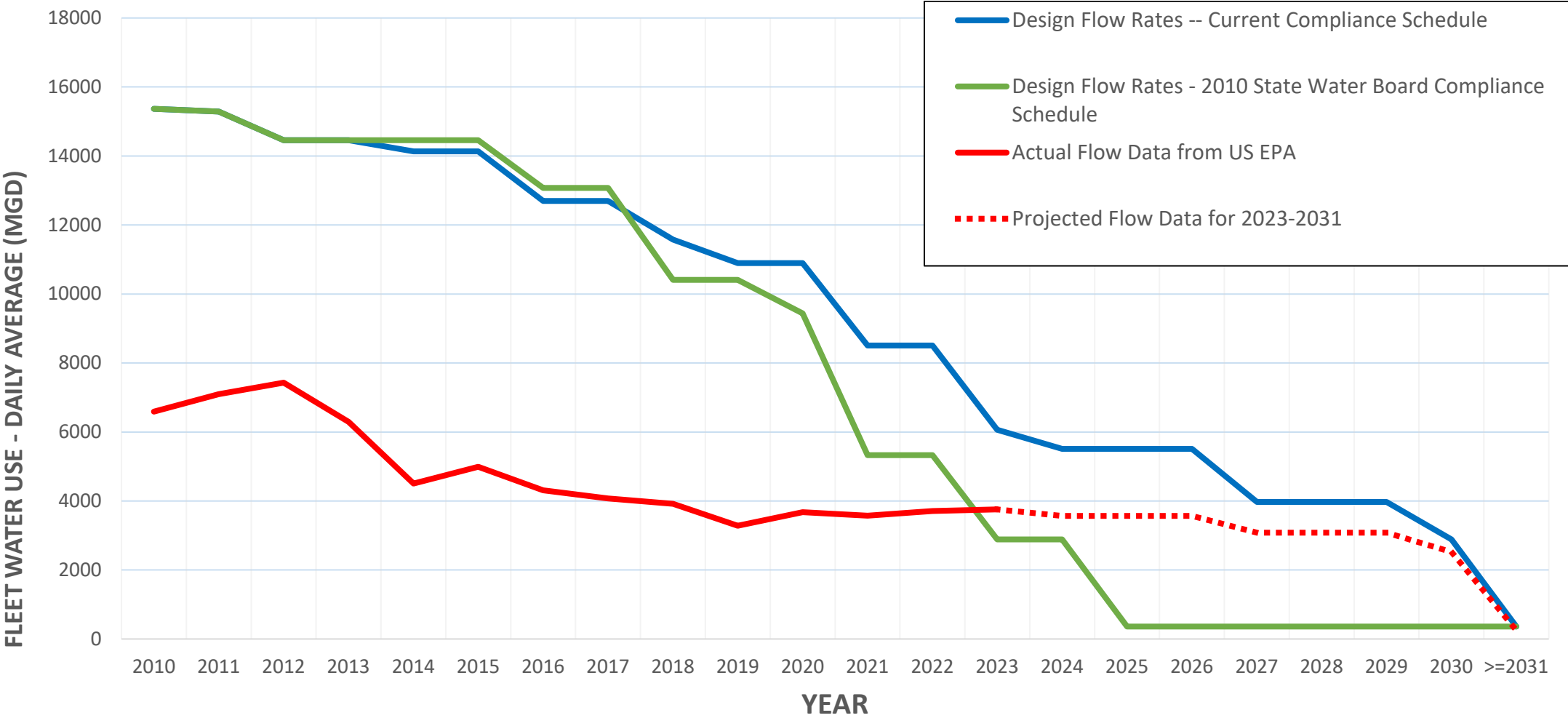
- Status of OTC Policy compliance and water use
- Grid resource and infrastructure planning updates
- Air and water regulatory and permitting considerations
- Recommendations and next steps

OTC Policy Compliance Schedule Status

- Applies to 19 power plants:
 - 12 in full compliance
 - 7 on track to achieve full compliance



Historic and Projected Water Use by the OTC Fleet



Regulatory Considerations Summary – Water Quality

Facility and Units	Waste Discharge Order	OTC Intake Location	OTC Discharge Location	Design Flow (Million Gallons/Day)
Alamitos Units 3, 4, 5	R4-2020-0134	Canal connected to Los Cerritos Channel Estuary	San Gabriel River Estuary	1,066
Diablo Canyon Units 1, 2	R3-1990-0009	Diablo Canyon intake cove	Diablo Cove	2,528
Harbor Unit 5	R4-2003-0101	Los Angeles Harbor	Los Angeles Harbor West Basin	108
Haynes Units 1, 2, 8	2000-081 and R4-2004-0089	Long Beach Marina	San Gabriel River	968
Huntington Beach Unit 2	R8-2020-0040	Pacific Ocean	Pacific Ocean	514
Ormond Beach Units 1, 2	R4-2020-0132	Pacific Ocean	Pacific Ocean	685
Scattergood Units 1, 2	R4-2016-0055	Santa Monica Bay	Pacific Ocean	495

Air Regulatory Summary

- CARB coordinates with air districts to identify requirements related to permitting and current/future rule development that could impact OTC unit operation
- Permitting
 - For operation through OTC Policy compliance dates, Title V permit renewals are required for Ormond Beach, Alamitos, Scattergood, Harbor, and Haynes, which are currently in process at Ventura and South Coast air districts
 - Submittal of a timely Title V permit renewal application allows OTC facilities to continue operating under the terms and conditions of the current permit until it is renewed
- Compliance
 - Based on information available through December 2024, facilities are in compliance with applicable rules and regulations
- Rulemaking
 - South Coast Air Quality Management District Rules 1135 and 429.2 allow limited-term/limited scope exemptions for OTC units that will retire by 2029 – exemption does not apply if an OTC system is removed to comply with the OTC Policy but the existing OTC generating unit continues operating
 - Future projects involving modifications to existing OTC units or installation of new emissions units will need to go through applicable permit application, public noticing, and review processes by the local air district and U.S. EPA

Procurement Status

- The energy agencies continue to monitor the progress of new resources development
- Procurement of new resources is supporting the grid and preparing for the safe future retirement of existing facilities – over 16,000 MW Net Qualifying Capacity (NQC) in 5 years (equivalent to over 24,000 megawatts nameplate)
- CPUC procurement orders are expected to bring over 8,000 megawatts NQC by 2026, based on reported contracts.

Source: [Data as of the CPUC's Resource Tracking Data January 2025 release](#) (slides 7 and 15)

New Resource Additions Serving CAISO NQC Megawatts (MW)

Jan 2020 – Dec 2024

Technology Type	# Projects	2020	2021	2022	2023	2024	Total MW
Solar	125	490	435	327	655	496	2,404
Storage	140	100	1,612	1,906	2,448	3,480	9,545
Hybrid (Solar + Storage)	25	0	15	668	283	311	1,278
Wind	22	3	65	80	38	63	248
Geothermal	1	0	0	0	0	31	31
Hydro	4	0	0	0	0	0	0
Biomass	4	0	0	0	0	0	0
Biogas	3	0	0	0	0	0	0
Subtotal Total New SB100 Resources, In-CAISO	324	593	2,128	2,981	3,424	4,381	13,506
Natural Gas, including Alamitos & Huntington Beach	17	1,448	15	11	0	13	1,487
Total New Resources, In-CAISO	341	2,041	2,143	2,992	3,424	4,394	14,993
New Imports, Pseudo-Tie or Dynamically Scheduled	15	390	387	33	50	201	1,061
Total New Resources, including Imports	356	2,431	2,530	3,025	3,474	4,595	16,054

Summer 2024 Overview

- The CAISO may access OTC power plant units in the CAISO balancing area as part of the state Strategic Reliability Reserve to help manage grid reliability during extreme events
- In early July and September 2024, the CAISO operated through periods of prolonged heat and wildfire risks that posed potential risks to grid reliability across the CAISO balancing area within California.
 - Additionally, heat forecasted in balancing areas across the Western US potentially impacted California's access to imported energy
- The CAISO employed OTC units in three separate instances during this summer period
 - In each instance, the CAISO instructed units to start up and remain on standby at minimum operating levels to be ready to help manage grid reliability, and units were instructed to shut down shortly after forecasted temperatures and demands across California and the broader Western US subsided
- The CAISO only dispatched OTC units sparingly when extreme or emergency conditions were forecasted in summer 2024
 - Capacity factors of OTC units in the CAISO balancing area significantly decreased in 2024 compared to prior years demonstrating their limited use



Upcoming First Quarter Joint Agency Reliability Planning Assessment

- **Address SB 846, AB 1020, and AB 1373 Requirements**
 - **Summer 2024 Reliability Recap** (overlap of SB 846 and SB 1020)
 - Recap of Summer 2024 Events
 - Preparation for Summer 2025
 - **Demand Forecast Update**
 - **Supply Forecast Update**
 - **Tracking Project Development Update**
 - **Reliability 2025 and 5- and 10-year projections**
 - **Recommendations**
- **Report will be available on the CEC's website under Docket 21-ESR-01 - Resource Planning and Reliability at: [California Energy Commission : Docket Log](#)**

Conclusion

- Despite progress in deployment of new, clean generation, the grid remains susceptible to a combination of risks including development delays for authorized procurement of new resources, extreme events such as widespread heat, and coincident extreme events.
- SACCWIS continues to monitor procurement, new development and statewide grid reliability, and does not recommend changes to the compliance schedules in the OTC Policy.



Questions?