

Final 2026 Report of the Statewide Advisory Committee on Cooling Water Intake Structures

March 20, 2026



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Acronyms and Abbreviations

AC	After Construction
Air District	Air Pollution Control District
Alamitos	Alamitos Generating Station
BAA	Balancing Authority Area
CAISO	California Independent System Operator
CARB	California Air Resources Board
CEC	California Energy Commission
CEMS	Continuous Emissions Monitoring System
CO	Construction
CPUC	California Public Utilities Commission
Central Coast Regional Water Board	Central Coast Regional Water Quality Control Board
Diablo Canyon	Diablo Canyon Nuclear Power Plant
DWR	California Department of Water Resources
ESSRRP	Electricity Supply Strategic Reliability Reserve Program
GIE	Gas-Insulated Equipment
Harbor	Harbor Generating Station
Haynes	Haynes Generating Station
Huntington Beach	Huntington Beach Generating Station
IRP	Integrated Resource Planning
LADWP	Los Angeles Department of Water and Power
LCR	Local Capacity Requirement
Los Angeles Regional Water Board	Los Angeles Regional Water Quality Control Board
LSE	Load Serving Entity
MGD	Million Gallons per Day
MVAR	Mega Volt, Ampere, Reactive

MW	Megawatt
NO _x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NQC	Net Qualifying Capacity
NTC	Notice to Comply
Ormond Beach	Ormond Beach Generating Station
OTC	Once-Through Cooling
PC	Pre-Construction
PTO	Participating Transmission Owner
Redondo Beach	Redondo Beach Generating Station
RFP	Request for Proposals
ROWD	Report of Waste Discharge
S1	Semester 1
S2	Semester 2
Santa Ana Regional Water Board	Santa Ana Regional Water Quality Control Board
SACCWIS	Statewide Advisory Committee on Cooling Water Intake Structures
South Coast AQMD	South Coast Air Quality Management District
SED	Substitute Environmental Document
Scattergood	Scattergood Generating Station
SCE	Southern California Edison
SDG&E	San Diego Gas & Electric
SONGS	San Onofre Nuclear Generating Station
State Water Board	State Water Resources Control Board
TSO	Time Schedule Order
VCAPCD	Ventura County Air Pollution Control District
2010 Final SED	2010 Final Substitute Environmental Document

I. Introduction

The Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) has prepared this report for the State Water Resources Control Board (State Water Board) to summarize the State of California's current electrical grid reliability needs. The State Water Board, when adopting the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, also known as the Once-Through Cooling (OTC) Policy, impaneled the SACCWIS to advise the State Water Board on OTC Policy¹ implementation.

Since 2010, the OTC Policy has reduced marine and estuarine water intake and use by electricity generators in California and lessened entrainment and impingement mortality of marine life. The SACCWIS is committed to realizing full and final compliance with the OTC Policy in the coming years, while maintaining the reliability of California's electric system and meeting the state's environmental and energy goals.

Since the adoption of the OTC Policy, 12 of the 19 power plants to which it applied have achieved full final compliance. Seven OTC power plants continue to operate and have fulfilled their interim compliance requirements to date. The latest final compliance date listed in the OTC Policy is currently October 31, 2030.

The concluding findings of this SACCWIS report do not recommend any changes to the OTC Policy final compliance schedules for associated generating facilities, largely due to the development of significant supply-side resources. The agencies of the SACCWIS continue to closely monitor grid reliability needs throughout the state. Load Serving Entity (LSE) procurement activity, primarily for supply resources, is still ongoing to meet California Public Utilities Commission (CPUC) procurement orders, and the CPUC continues to monitor progress towards meeting these orders. Some existing contracts will be delayed, and other contracts will be added, consistent with the cycle of energy project development. Significant progress is being made to deploy new, clean energy generation.

¹ State Water Resources Control Board (State Water Board). 2023. [Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling](#) (Once-Through Cooling or OTC Policy). Sacramento, CA: State Water Board.

However, the grid remains susceptible to a combination of risks including development delays of new supply resources coming online to meet procurement orders, and extreme events such as west-wide heat waves and coincident wildfires. Unforeseen project development risks and extreme events drive the need for additional capacity to maintain grid reliability. The CPUC, California Energy Commission (CEC), and California Independent System Operator (CAISO) continue to monitor statewide supply, reliability, and resource development, while providing forward grid reliability assessments in quarterly reports pursuant to Senate Bill 846.² The SACCWIS does not recommend any changes to the OTC Policy final compliance schedules.

II. SACCWIS Role and Process

The SACCWIS includes representatives from the CEC, CPUC, California Coastal Commission, State Lands Commission, California Air Resources Board (CARB), CAISO, and State Water Board. The State Water Board impaneled the SACCWIS to advise on OTC Policy implementation. The SACCWIS provides recommendations to the State Water Board to ensure that the OTC Policy final compliance schedule accounts for California's electricity supply reliability, including local areas, statewide grid reliability, and permitting constraints. OTC Policy Section 3.B(4) provides that the SACCWIS will report to the State Water Board with recommendations on any need for modifications to the compliance schedule each year starting in 2012 and at least through 2026. The SACCWIS may convene beyond 2026, as needed or requested by a SACCWIS member agency, to address grid reliability concerns impacting existing power plants.

The OTC Policy indicates that the State Water Board shall consider the SACCWIS' recommendations and, if appropriate, consider modifications to the OTC Policy. The State Water Board shall afford significant weight to a unanimous recommendation from the

² California State Legislature. 2022. [Sen. Bill No. 846](#), approved by Governor Gavin Newsom on September 2, 2022 (2021-2022 Reg. Sess.) (hereinafter Senate Bill 846.) Sacramento, CA: California Legislative Information. Senate Bill 846 mandated that the California Energy Commission and CPUC develop quarterly joint agency reliability planning assessments. The joint agency assessments can be found on the [California Energy Commission's Joint Agency Reliability Planning Assessment: SB 846 Secondary Quarterly Report Website](#).

SACCWIS energy agencies to modify the implementation schedule based on grid reliability.

The SACCWIS is committed to realizing full and final OTC Policy compliance within the coming years, while maintaining the reliability of California's electric system and meeting the state's environmental and energy goals. Furthermore, the energy agencies are dedicated to monitoring and enhancing California's grid reliability and continue to work collaboratively to improve and perform new analysis that incorporates a range of risk scenarios.

III. Status of Compliance and Once-Through Cooling Water Use

Since the OTC Policy was adopted in 2010, the majority of OTC generating units have retired, repowered, or come into final compliance. The closure of the San Onofre Nuclear Generating Station (SONGS) resulted in a significant reduction in ocean water use for power plant cooling. Table 1 shows the power plants in the CAISO and Los Angeles Department of Water and Power (LADWP) Balancing Authority Areas (BAA) that have achieved final compliance, several of which did so well before their mandated final compliance deadlines.

Table 1: Gas-Fired OTC Facility Compliance Achievement

Facility & Units	Maximum Output (Megawatt or MW)	OTC Policy Scheduled Compliance Date	Actual Final Compliance Date
Humboldt Bay 1, 2	135	Dec. 31, 2010	Retired Sept. 30, 2010
South Bay	296	Dec. 31, 2011	Retired Dec. 31, 2010
Potrero 3	206	Oct. 1, 2011	Retired Feb. 28, 2011
Huntington Beach 3, 4	452	Dec. 31, 2020	Retired Nov. 1, 2012 ³
Contra Costa 6, 7	674	Dec. 31, 2017	Retired Apr. 30, 2013 ⁴
San Onofre 2, 3	2,246	Dec. 31, 2022	Retired June 7, 2013 ⁵
Haynes 5, 6	535	Dec. 31, 2013	Retired June 13, 2013 ⁶
El Segundo 3	335	Dec. 31, 2015	Retired July 27, 2013 ⁷
Morro Bay 3, 4	650	Dec. 31, 2015	Retired Feb. 5, 2014
El Segundo 4	335	Dec. 31, 2015	Retired Dec. 31, 2015
Scattergood 3	497	Dec. 31, 2015	Retired Dec. 31, 2015
Pittsburg	1,159	Dec. 31, 2017	Operations ceased Dec. 31, 2016
Moss Landing 6, 7	1,509	Dec. 31, 2020	Retired Jan. 1, 2017
Encina 1	106	Dec. 31, 2017	Retired Mar. 1, 2017
Mandalay 1, 2	430	Dec. 31, 2020	Retired Feb. 5, 2018
Encina 2-5	844	Dec. 31, 2018	Retired Dec. 11, 2018
Redondo Beach 7	493	Dec. 31, 2020	Retired Oct. 1, 2019

³ Huntington Beach Generating Station Units 3 and 4 were converted to synchronous condensers in 2013. Once-through cooling water was used in a limited capacity until September 30, 2018.

⁴ Although NRG Energy retired Contra Costa Generating Station Units 6 and 7, the Marsh Landing Generating Station was constructed immediately next to the retired facility. The Marsh Landing Generating Station is a non-once-through cooling generating facility.

⁵ San Onofre Nuclear Generating Station Units 2 and 3 were officially retired June 7, 2013, but they ceased power generation on Jan. 31, 2012.

⁶ The Los Angeles Department of Water and Power retired Haynes Generating Station Units 5 and 6 and replaced them with Haynes Generating Station Units 11 through 16, which do not use once-through cooling technology.

⁷ NRG Energy retired El Segundo Generating Station Unit 3 and replaced it with El Segundo Generating Station Units 5 through 8, which do not use once-through cooling technology.

Facility & Units	Maximum Output (Megawatt or MW)	OTC Policy Scheduled Compliance Date	Actual Final Compliance Date
Alamitos 1, 2, 6	848	Dec. 31, 2020	Retired Dec. 31, 2019
Huntington Beach 1	215	Dec. 31, 2020	Retired Dec. 31, 2019
Moss Landing 1, 2	1,020	Dec. 31, 2020	Complied Oct. 23, 2020 ⁸
Redondo Beach 5, 6, 8	834	Dec. 31, 2023	Retired Dec. 31, 2023
Total Capacity (MW)	13,819	--	--

Table 2 reflects the final compliance plans for the remaining gas-fired power generating units that use ocean or estuarine water for cooling purposes. Table 3 presents recent performance of the gas-fired OTC units as a percentage of annual capacity factors. The annual capacity factor is defined as the ratio of the electrical energy produced by a generating unit for the year divided by the maximum energy that could have been produced at continuous full power operation. The capacity factor provides one indication of how a generating unit is used. Generating units used to meet peak power needs typically have lower capacity factors. A negative value indicates that the unit's onsite electricity use (parasitic load) exceeded the electricity generated and delivered to the grid, which typically occurs during periods of minimal or no operation. The capacity of most of the remaining OTC power plants is only used a small percentage of the time, but this capacity helps serve demand during peak hours and stressed operating conditions.

⁸ Dynegy Moss Landing Power Plant complied with Once-Through Cooling Policy Track 2. The 2025 SACCWIS Report incorrectly stated that Moss Landing Power Plant Units 1 and 2 were decommissioned. These units are still operational under Track 2 and use OTC water.

Table 2: OTC Compliance Plans for Remaining Gas-Fired Units

Facilities and Units	Maximum Output (MW)	OTC Policy Scheduled Final Compliance Date	Owner Proposed Compliance Method
Alamitos 3, 4, 5 ⁹	1,141	Dec. 31, 2026	Plans to comply by Dec. 31, 2026
Harbor 5	75	Dec. 31, 2029	Plans to comply by Dec. 31, 2029
Haynes 1, 2	460	Dec. 31, 2029	Plans to comply by Dec. 31, 2029
Haynes 8	264	Dec. 31, 2029	Plans to comply by Dec. 31, 2029
Huntington Beach 2	227	Dec. 31, 2026	Plans to comply by Dec. 31, 2026
Ormond Beach 1, 2	1,491	Dec. 31, 2026	Plans to comply by Dec. 31, 2026
Scattergood 1, 2	326	Dec. 31, 2029	Plans to comply by Dec. 31, 2029
Total Capacity (MW)	3,984	--	--

⁹ The Time Schedule Order (TSO) associated with Alamitos Generating Stations' National Pollutant Discharge Elimination System (NPDES) permit expired on December 31, 2025. As such, maximum generation from the Alamitos Generating Station may be reduced to meet the requirements of the NPDES permit such as high outfall water temperature restrictions, especially between May and October 2026.

Table 3: Recent Performance of OTC Gas-Fired Generating Units

CAISO Balancing Authority Area Facilities and Units	OTC Policy Scheduled Final Compliance Date	Maximum Output (MW)	Annual Capacity Factors (Percent)						
			2019	2020	2021	2022	2023	2024	2025 (Jan-Sep)
Alamitos 3	Dec. 31, 2026	327	5.58	6.46	5.58	9.37	8.56	0.37	0.35
Alamitos 4	Dec. 31, 2026	334	5.59	4.50	6.37	8.96	7.46	0.24	0.23
Alamitos 5	Dec. 31, 2026	480	1.24	5.42	4.63	2.55	3.34	0.25	0.42
Huntington Beach 2	Dec. 31, 2026	227	4.12	5.69	4.46	5.64	8.89	0.30	0.40
Ormond Beach 1	Dec. 31, 2026	741	0.55	4.98	2.00	1.44	0.98	0.28	0.20
Ormond Beach 2	Dec. 31, 2026	750	1.63	5.26	4.04	2.86	2.65	0.27	0.15
LADWP Balancing Authority Area Facilities and Units									
Harbor 5	Dec. 31, 2029	75	3.40	0.39	2.59	3.60	4.66	7.85	3.47
Haynes 1	Dec. 31, 2029	230	4.05	5.13	1.70	4.71	14.36	6.05	-0.15 ¹⁰
Haynes 2	Dec. 31, 2029	230	1.18	3.92	1.76	3.33	-0.16	-0.19	0.66
Haynes 8	Dec. 31, 2029	264	39.22	48.89	34.62	31.30	30.13	36.17	26.62
Scattergood 1	Dec. 31, 2029	163	3.62	3.15	2.84	2.75	2.12	3.36	0.51
Scattergood 2	Dec. 31, 2029	163	6.62	10.36	1.87	0.78	1.67	5.66	5.47

Source: California Energy Commission, [Quarterly Fuel and Energy Report](#).

¹⁰ The negative net output reflects more onsite consumption (also known as parasitic load) than generation output to the grid.

Once-Through Cooling Water Use

Figure 1 illustrates OTC power plant fleet ocean and estuarine water flow rates over time. The uppermost solid green line shows the OTC Policy final compliance schedule as originally adopted in 2010, while the solid blue line shows the current OTC Policy compliance schedule as last amended in 2023 and accounts for OTC owner and operator compliance decisions. While most OTC owners and operators opted to retire their OTC units, which qualifies as Track 1 compliance, Moss Landing Power Plant opted to comply with Track 2, which allows limited use of OTC water and explains why the solid green and blue lines approach but do not reach zero in 2031.

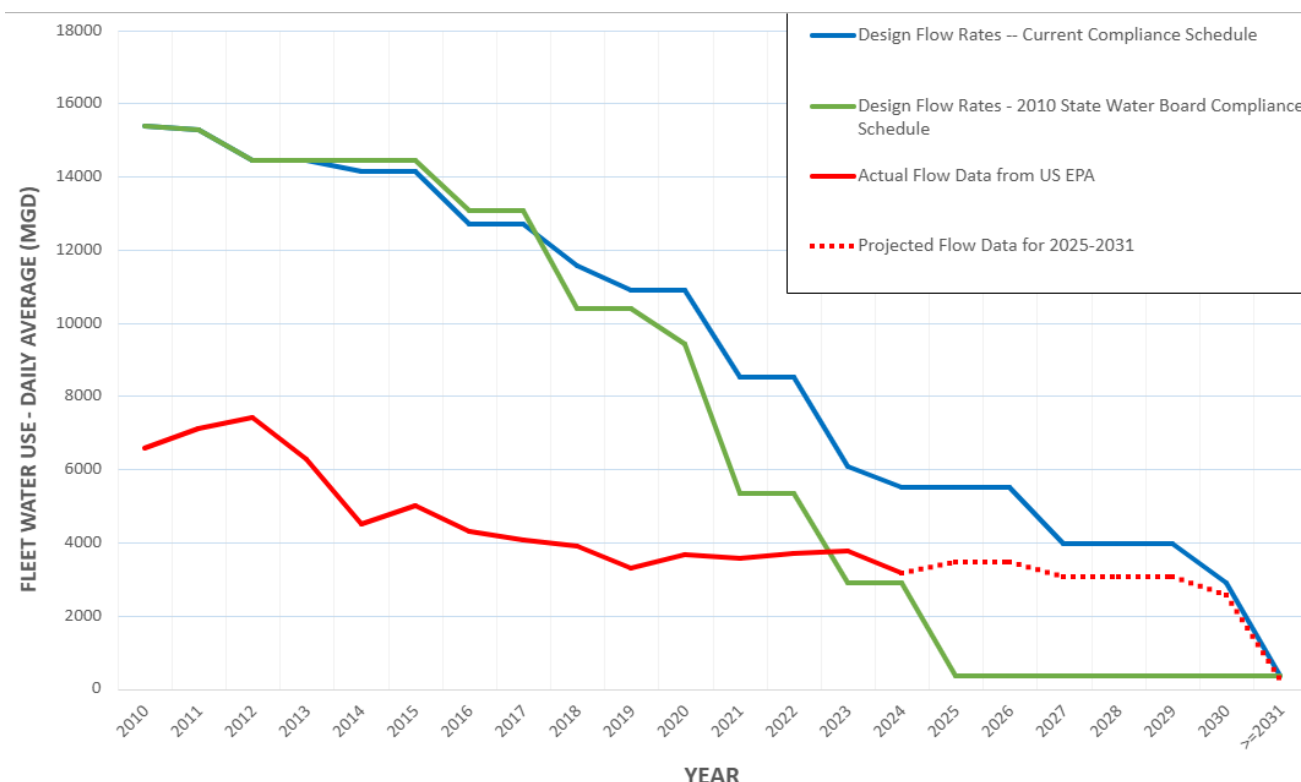
The solid red line shows actual flow rates from the OTC power plant fleet. See Appendix A for flow rate data. The dashed red line shows projected flow rates for 2025 through 2031. Projections are based on the average of the previous three years of actual flow rate data.

The solid red line is below the blue line because fossil-fueled OTC power plants have generally operated with annual capacity factors below design flow rates. Accelerated environmental benefits compared to the original final compliance schedule are due to SONGS and several other OTC power plants retiring before their OTC final compliance dates.

Projected OTC flow rates (dashed red line) and actual flow data (solid red line) from 2023 through 2030 exceed the original OTC Policy final compliance schedule adopted in 2010 (solid green line). However, projected OTC flow rates are still within the most current OTC Policy final compliance schedule. Additionally, projected flow rates from 2025 to 2030 exceed the green line from 2025 to 2030 mainly due to the legislative extension of Diablo Canyon Nuclear Power Plant's (Diablo Canyon) OTC Policy final compliance date through 2030 via Senate Bill 846. Diablo Canyon is the largest operational OTC facility by volume of daily OTC usage.

Owners and operators are required to offset impingement and entrainment impacts associated with continued operations by participating in the OTC Policy interim mitigation program, as determined in Resolution No. 2015-0057 and Resolution No. 2024-0014.^{11, 12}

Figure 1: Historic and Projected Water Usage by the OTC Fleet



Source: CEC and State Water Board Staff. Last updated November 2025

IV. Electricity Supply Strategic Reliability Reserve Program Power Plant Capacity

On June 30, 2022, Governor Gavin Newsom signed Assembly Bill 205 into law, which established a Strategic Reliability Reserve.¹³ The Strategic Reliability Reserve consists of three programs, including the Electricity Supply Strategic Reliability Reserve Program

¹¹ State Water Resources Control Board. 2015. [Resolution No. 2015-0057](#). Sacramento, CA: State Water Resources Control Board.

¹² State Water Resources Control Board. 2024. [Resolution No. 2024-0014](#). Sacramento, CA: State Water Resources Control Board.

¹³ California State Legislature. 2022. [Assembly Bill No. 205](#), approved by Governor Gavin Newsom on June 30, 2022 (2021-2022 Re. Sess.) (hereinafter Assembly Bill 205.) Sacramento, CA: California Legislative Information.

(ESSRRP). The ESSRRP is intended to bolster system reliability while California procures clean energy resources, including extending the operations of power plants previously scheduled for retirement. Assembly Bill 205 acknowledged that existing generation assets, such as some OTC power plants, would be required to maintain reliability during extreme or simultaneously occurring extreme events as California transitions to a clean energy economy. By intent, the ESSRRP OTC power plants are only called upon to support grid operations during extreme events, thereby limiting the use of OTC water and limiting total annual air pollutants and greenhouse gas emissions.

After the ESSRRP was created and the SACCWIS recommended to extend the OTC Policy final compliance dates for Alamitos, Huntington Beach, and Ormond Beach generating stations (Alamitos, Huntington Beach, and Ormond Beach, respectively), the State Water Board adopted an OTC Policy amendment on August 15, 2023, which extended the final compliance deadlines of the three power plants to December 31, 2026,¹⁴ contingent upon participation in the ESSRRP. Alamitos, Huntington Beach, and Ormond Beach entered ESSRRP service beginning January 1, 2024.

The CAISO may access ESSRRP OTC power plant units in the CAISO BAA according to processes specified in CAISO Operating Procedure 4420.¹⁵ The CAISO operated through periods of prolonged heat and wildfire threats in early July and September 2024, which posed potential risks to grid reliability. Additionally, prolonged heat forecasted in other balancing areas across the Western United States introduced risks that California's access to imported energy would be limited. The CAISO instructed ESSRRP OTC Units to start up and remain on standby to support grid reliability in three separate instances during summer 2024. The CAISO did not instruct ESSRRP OTC Units to start up for reliability needs in 2025.

The limited use of the ESSRRP OTC power plants demonstrates that the CAISO only dispatches OTC units sparingly when extreme or emergency conditions are forecasted.

¹⁴ State Water Resources Control Board. 2023. [Resolution No. 2023-0025](#). Sacramento, CA: State Water Resources Control Board.

¹⁵ California Independent System Operator. 2024. [Operating Procedure 4420](#). Folsom, CA: California Independent System Operator.

Capacity factors listed in Table 3 above reflect the limited use in 2024 and no use in 2025 for reliability needs.

V. Grid Resource Planning and Procurement Status

This section describes information pertaining to the State of California's electrical grid, focusing on updates on transmission projects and procurement through 2028. This information relates to OTC Policy implementation because of the OTC power plants' overlay with and impact on statewide grid reliability.

Resource Planning and Responsibility

This section summarizes the roles of the CPUC, CAISO, and CEC in maintaining California's electrical grid reliability.

The CPUC is the agency responsible for developing resource portfolios that the CAISO studies for future transmission needs and setting electricity resource planning targets for LSEs in its jurisdiction. The mechanism through which this planning occurs is called the Integrated Resource Planning (IRP) process. The CPUC established the IRP process to meet Senate Bill 350 legislative requirements, and to serve as a successor to the CPUC's Long-Term Procurement Planning process established in 2002 after the California Energy Crisis.^{16, 17} The IRP process is intended to develop a diverse and balanced resource portfolio that simultaneously maximizes zero-carbon energy integration to reach California's greenhouse gas reduction and renewable energy targets while minimizing costs and maintaining reliability.¹⁸ To achieve these goals, the CPUC regularly evaluates whether existing and projected resources are sufficient to meet future demand. CPUC then uses this analysis to provide procurement and policy guidance. This information is

¹⁶ California State Legislature. 2015. [Senate Bill No. 350](#), approved by Governor Gavin Newsom on October 7, 2015 (2015-2016 Reg. Sess.) Sacramento, CA: California Legislative Information.

¹⁷ United States Energy Information Administration. [Subsequent Events – California's Energy Crisis](#). Washington D.C.: United States Energy Information Administration.

¹⁸ The combined Integrated Resource Plan-Long Term Procurement Plan proceeding is R.20-05-003. See: California Public Utilities Commission. 2020. [Ruling 20-05-003](#). San Francisco, CA: California Public Utilities Commission.

significant to OTC Policy compliance deadlines because OTC power plant retirement schedules are included in the IRP planning process and analysis, which accounts for progress towards compliance.

The CAISO manages the flow of electricity across high-voltage, long-distance power lines, operates a competitive wholesale energy market, and oversees transmission planning in California's largest balancing authority area. Below is an outline of the general planning and implementation process:

- CPUC adopts IRP planning targets that reflect OTC Policy final compliance deadlines.
- CPUC then sends its generation and storage portfolio to the CAISO to inform authorization of new transmission projects or upgrades to interconnect new generation resources to the electrical grid via the Transmission Planning Process.
- The collective IRP-Transmission Planning Process is open for public and interested party feedback in the fall annually.
- CPUC transmits its generation portfolio findings to CAISO by February annually.

The CEC is the state's primary energy policy and planning agency. The CEC established the California Energy Demand forecast, which is the foundation for energy planning in the state, in consultation with the CPUC, CAISO, and CARB. The CEC provides regular reliability assessments to provide situational awareness to the Governor's Office, Legislature, and the public. It also provides technical support during emergencies impacting the electrical grid by coordinating energy resources, managing power disruptions, ensuring continuity of energy services, and collaborating with utility and relevant agencies to resolve energy-related challenges during disasters. Additionally, the CEC maintains the Demand Side Grid Support and Distributed Electricity Backup Assets programs to provide emergency capacity during grid emergencies. The CEC is also the lead agency for licensing fossil fuel power plants of 50 megawatt (MW) and larger and has a regulatory certification process under the California Environmental Quality Act. Under this process, the CEC conducts an environmental analysis of each project's Application for Certification, including an analysis of alternatives and mitigation measures

to minimize any significant adverse effect the project may have on the environment. These requirements do not apply to the repowering or replacement of an existing power plant wherein the net increase in capacity is less than 50 MW. Assembly Bill 205, signed into state law on June 30, 2022, gave the CEC additional authority to establish a new limited term Opt-in Certification program for applications submitted by June 30, 2029, from non-fossil fuel power plants, energy storage facilities, and other related facilities, such as solar photovoltaic or wind facilities of 50 MW and larger.

Past Reliability Transmission Projects

The following table provides a summary of the reliability transmission projects approved by the CAISO Board of Governors in the 2012-2013, 2013-2014, 2014-2015, 2015-2016, and 2016-2017 Transmission Plans to address reliability concerns related to the retirement of SONGS and Los Angeles Basin and San Diego local areas' OTC power plants.¹⁹ Table 4 identifies the in-service dates and responsible Participating Transmission Owners (PTO).

Table 4: In-Service Dates for CAISO Board Approved Transmission Projects

	Transmission Projects	PTO Service Territory	Target In-Service Dates
1	Talega Synchronous Condensers (2x225 Megavolt, Ampere, Reactive, or MVAR)	San Diego Gas and Electric (SDG&E)	In-Service (8/7/2015)
2	San Luis Rey Synchronous Condensers (2x225 MVAR)	SDG&E	In-Service (12/29/2017)
3	Imperial Valley Phase Shifting Transformers (2x400 MVAR)	SDG&E	In-Service (5/1/2017)
4	Sycamore – Peñasquitos 230 kilovolt Line	SDG&E	In-Service (8/29/2018)
5	San Onofre Synchronous Condensers (1x225 MVAR)	SDG&E	In-Service (10/16/2018)
6	Miguel VAR Support (450 MVAR)	SDG&E	In-Service (4/28/2017)

¹⁹ Previous Transmission Plans can be found on the [California Independent System Operator's Transmission Plans and Studies Library](#).

	Transmission Projects	PTO Service Territory	Target In-Service Dates
7	Santiago Synchronous Condensers (3x81 MVAR)	Southern California Edison (SCE)	In-Service (12/8/2017)
8	Mesa Loop-In Project and South of Mesa 230 kilovolt Line Upgrades	SCE	In-Service (5/31/2022)
9	Extension of Huntington Beach Unit 3 Synchronous Condenser (140 MVAR)	SCE	Reliability-Must-Run contract extended and expired on 12/31/2017 ²⁰

CPUC Procurement Orders and Associated Capacity Status

LSEs subject to CPUC jurisdiction (all of which participate in the CAISO system) are required to procure resources based on CPUC's IRP proceeding decisions. Some of the following projects and resources have provided new capacity that replaced need for OTC capacity already offline or projected to go offline. The following sections contain past and recent procurement orders, procurement milestones, monitoring, and projections for incremental capacity procurement associated with the IRP proceeding²¹ in response to a request made by State Water Board members at the August 15, 2023 State Water Board meeting.

Incremental Capacity Procurement and Procurement Monitoring for CPUC Decisions (D.) 13-02-015 and D.14-03-004

This section summarizes information for two prior and separate procurement orders, Decision (D.) 13-02-015 and D.14-03-004 that stem from a CPUC planning proceeding, Rulemaking (R.) 12-03-014²² because some of the associated new capacity replaced OTC capacity that is now offline.

²⁰ The contract for the synchronous condensers expired on December 31, 2017, and they are no longer operating.

²¹ The August 15, 2023 State Water Resources Control Board meeting can be found on the [State Water Resources Control Board's YouTube channel](#).

²² California Public Utilities Commission. 2012. [Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans](#) (R.12-03-014). San Francisco, CA: California Public Utilities Commission.

Tables 5 and 7 below show the different electric capacity procurement authorizations for the Southern California area, where the remaining gas-fired OTC power plants are located. The different tracks are separate procurement orders. Track 1 procurement stems from D.13-02-015, which outlined procurement requirements for capacity in the West Los Angeles Basin and Big Creek/Ventura local reliability areas.²³ Track 4 procurement stems from D.14-03-004, which outlined additional procurement requirements in the West Los Angeles Basin and San Diego/Imperial Valley local reliability areas in response to the retirement of SONGS.²⁴ Note that the use of the term “track” in this context is different from the two tracks for OTC Policy compliance. Tables 6 and 8 includes authorizations that resulted in Applications of Procurement reviewed and approved by the CPUC and the subsequent construction of resources that came online over the years.

²³ California Public Utilities Commission. 2013. [Decision Authorizing Long-Term Procurement for Local Capacity Requirements](#) (D.13-02-015). San Francisco, CA: California Public Utilities Commission.

²⁴ California Public Utilities Commission. 2014. [Decision Authorizing Long-Term Procurement for Local Capacity Requirements Due to Permanent Retirement of the San Onofre Nuclear Generating Stations](#) (D.14-03-004). San Francisco, CA: California Public Utilities Commission.

Table 5: Southern California Edison Authorizations from R.12-03-014

Resource Type	Track 1 LCR²⁵ (West LA Basin) MW	Track 1 LCR (Big Creek/ Ventura) MW	Additional Track 4 Authorization (West LA Basin) MW	Total Authorization MW	Approved Applications MW
Preferred Resources²⁶ & Energy Storage (Minimum)	200	--	400	600	565 ²⁷
Gas-fired Generation (Minimum)	1,000	--	--	1,000	1,000
Optional: Preferred Resources/ Storage	Up to 400	--	--	Up to 400	0
Optional: Any Resource	200	--	100 to 300	300 to 500	382
Required: Any Resource	--	215 (minimum) to 290	--	215 (minimum) to 290	207 ²⁸
Total	1,400 to 1,800	215 to 290	500 to 700	2,115 to 2,790	2,154

²⁵ Local Capacity Requirement (LCR)

²⁶ Preferred resources are those used for energy efficiency, demand response, renewable resources, and distributed generation. Preferred resources are described in the 2005 State Energy Action Plan II. See: California Public Utilities Commission. 2005. [State Energy Action Plan II](#). San Francisco, CA: California Public Utilities Commission.

²⁷ Includes roughly 27 megawatts (MW) of storage capacity authorized by Resolution E-4804 to alleviate constraints in Southern California due to the Aliso Canyon Gas Storage Facility outage. See: California Public Utilities Commission. [Resolution E-4804](#). San Francisco, CA: California Public Utilities Commission.

²⁸ Includes the 100 MW from the Strata Saticoy Storage Project approved in D.19-12-055 and 95 MW of storage and demand response resources (with the option for an additional 20 MW from one storage resource) approved in Resolution E-5033, which replaced the 262 MW Puente Power Project that was approved in D.16-05-050 and subsequently cancelled. For additional details see California Public Utilities Commission (CPUC) decisions:

CPUC. 2019. [Decision 19-12-055](#). San Francisco, CA: CPUC.

CPUC. 2019. [Resolution E-5033](#). San Francisco, CA: CPUC.

CPUC. 2016. [Decision 16-05-050](#). San Francisco, CA: CPUC.

Table 6: Southern California Edison Approved Applications

Resource Type	Location	Capacity MW	Status
Demand Response	Big Creek/Ventura	14	Approved ²⁹
Demand Response	West LA Basin	5	Approved
Distributed Generation	Big Creek/Ventura	6	Approved
Distributed Solar Generation	Johanna/Santiago	12	Approved
Distributed Solar Generation	West LA Basin	28	Approved
Energy Efficiency	Big Creek/Ventura	6	Approved
Energy Efficiency	Johanna/Santiago	23	Approved
Energy Efficiency	West LA Basin	101	Approved
Energy Storage	Big Creek/Ventura	186	Approved
Energy Storage	Johanna/Santiago	153	Approved
Energy Storage	Long Beach	100	Operational
Energy Storage	West LA Basin	138	Approved
Combined Cycle Gas Turbine	Alamitos	640	Operational
Combined Cycle Gas Turbine	Huntington Beach	644	Operational
Gas Combustion Turbine	Stanton	98	Operational
Total	--	2,154	--

²⁹ Approved status indicates that the project has been approved, or that a portion of the capacity (MW) of the associated facility may be operational.

Table 7: San Diego Gas & Electric Authorizations from R.12-03-014

Resource Type	D.13-03-029/ D.14-02-016 MW³⁰	Additional Track 4 Authorization MW	Total Authorization MW	Pending & Approved Applications MW
Preferred Resources & Energy Storage	--	200 (Minimum)	200	144.5 ³¹
Optional: Any Resource	300 (Pio Pico, CA)	300 to 600	600 to 900	800
Total	300	500 to 800	800 to 1,100	944.5

Table 8: San Diego Gas & Electric Approved Applications

Resource Type	Location	Capacity in MW	Status
Demand Response	San Diego/Imperial Valley	4.5	Operational
Energy Efficiency	San Diego/Imperial Valley	19	Approved ³²
Energy Storage	San Diego/Imperial Valley	121	Approved
Gas Combustion Turbine	Carlsbad (Encina site)	500	Operational
Gas Turbine	Pio Pico	300	Operational
Total	--	944.5	--

³⁰ See California Public Utilities Commission (CPUC) Decisions: CPUC. 2012. [Decision Determining San Diego Gas & Electric Company's Local Capacity Requirement and Granting Partial Authority to Enter into Purchase Power Tolling Agreements](#) (D.12-03-029). San Francisco, CA: CPUC.

CPUC. 2014. [Decision Granting San Diego Gas & Electric Company Authority to Enter into a Purchase Power Tolling Agreement With Pio Pico Energy Center, LLC](#) (D.14-02-016). San Francisco, CA: CPUC.

³¹ Includes roughly 38 MW of storage capacity authorized by Resolution E-4798 to alleviate constraints in Southern California due to the Aliso Canyon Gas Storage Facility outage. See: California Public Utilities Commission. 2016. [Resolution E-4798](#). San Francisco, CA: California Public Utilities Commission.

³² Approved status indicates that the project has been approved, or that a portion of the capacity (MW) of the associated facility may be operational.

Incremental Capacity Procurement and Procurement Monitoring for CPUC Decisions 19-11-016, 21-06-035, and 23-02-040

This section details more recent procurement orders under the CPUC's IRP process, including D.19-11-016, D.21-06-035, and D.23-02-040. These orders date to 2019 and are discussed separately from authorizations and procurement listed in the previous section. The Commission ordered procurement via these three orders in response to conditions that pose greater challenges to California's grid reliability compared to past IRP authorizations, including extreme weather events, wildfires, supply chain constraints, interconnection, and permitting concerns. Additional information on the status of capacity procurement associated with these recent IRP decisions can be found on the CPUC's website.³³

Table 9 summarizes when capacity associated with these three decisions is required to come online. Table 10 summarizes capacity that has come online since January 2020 by capacity type. Much of this capacity is a direct result of, and is intended to fulfill, the recent IRP procurement orders associated with D.19-11-016, D.21-06-035, and D.23-02-040, which are discussed in greater detail below. Notably, most of this capacity is renewable or considered zero-carbon. Cells with a zero value indicate that no resources of that row's type were added to the electrical grid serving CAISO for that column's year.

³³ Information on the status of procurement orders can be found on the California Public Utilities Commission's [IRP Procurement Track website](#). The most recent update provides a status update on procurement compliance based on load serving entities' filings.

**Table 9. New Resource Additions Serving CAISO Required Online From
CPUC D.19-11-016, D.21-06-035, and D.23-02-040:
August 1, 2021 – June 1, 2028 (Net Qualifying Capacity MW)**

Date	Cumulative Net Qualifying Capacity or NQC (MW) Required Online
August 1, 2021	1,650
August 1, 2022	2,475
August 1, 2023	5,300
August 1, 2024	11,300
June 1, 2025	12,800
June 1, 2026	14,800
June 1, 2027	16,800
June 1, 2028	18,800
Total	18,800

**Table 10. New Resource Additions Serving CAISO:
January 1, 2020 — December 31, 2025 (MW NQC)³⁴**

Technology Type	2020	2021	2022	2023	2024	2025	Total MW NQC³⁵	Number Projects
UTILITY-SCALE SOLAR	444	435	318	606	499	142	2,445	153
STORAGE	100	1,607	1,906	2,448	3,499	3,325	12,884	187
UTILITY-SCALE HYBRID (SOLAR + STORAGE)	0	15	569	243	331	316	1,473	30
WIND	3	65	80	33	63	6	249	23
GEOHERMAL	0	0	0	0	31	0	31	1
HYDRO	0	0	0	0	0	0	0	4
BIOMASS	0	0	0	0	0	0	0	5
BIOGAS	0	0	0	0	0	0	0	4
Subtotal Total New Senate Bill 100 Resources, IN-CAISO ³⁶	548	2,122	2,872	3,329	4,424	3,788	17,082	407

³⁴ Additional Information on New Resource Additions to the California Independent System Operator Balancing Authority Area can be found on the California Public Utilities Commission's [Tracking Energy Development website](#).

³⁵ Megawatts are reported in net qualifying capacity (NQC), which reflects each resource's reliability contribution rather than its nameplate capacity. Some new projects have not yet been assigned NQC values; therefore, totals are subject to change. Values in this table may differ from those in the 2025 SACCWIS report, as additional resources have since been assigned NQC values and updated Effective Load Carrying Capability (ELCC) calculations can result in changes to NQC values for existing resources.

³⁶ California State Legislature. 2018. [Sen. Bill No. 100](#), approved by Governor Gavin Newsom on September 10, 2018 (2017-2018 Reg. Sess.) (hereinafter Senate Bill 100.) Sacramento, CA: California Legislative Information. Senate Bill 100, also known as the 100 Percent Clean Energy Act of 2018, requires that by 2045, 100 percent of retail electricity sales and all electricity produced for state agencies come from renewable and zero-carbon resources.

Technology Type	2020	2021	2022	2023	2024	2025	Total MW NQC³⁵	Number Projects
NATURAL GAS, incl. Alamitos & Huntington Beach	1,448	15	11	0	12	11	1,498	19
Total New Resources, IN-CAISO	1,995	2,137	2,883	3,329	4,436	3,800	18,580	426
New Imports, Pseudo-Tie or Dynamically Scheduled	390	387	33	50	201	58	1,119	23
Total New Resources, including Imports	2,385	2,524	2,916	3,379	4,637	3,858	19,700	449

CPUC Incremental Capacity Procurement Pursuant to D.19-11-016

In November 2019, the CPUC adopted D.19-11-016 directing the procurement of 3,300 MW net qualifying capacity (NQC) from LSEs under the CPUC's jurisdiction by August 2023 to support system-wide electric reliability.³⁷ The CPUC also recommended that the State Water Board consider revising the OTC Policy to extend the final compliance dates for Alamitos Units 3, 4, and 5; Huntington Beach Unit 2; Redondo Beach Units 5, 6, and 8; and Ormond Beach Units 1 and 2. The SACCWIS supported and recommended extending the final compliance dates of these power plants in response to this information. On September 1, 2020, the State Water Board adopted an OTC Policy amendment to extend final compliance dates for the above units, several of which were further extended by the August 15, 2023 OTC Policy Amendment.

D.19-11-016 required 1,650 MW NQC of the required procurement to be online by August 2021; 2,475 MW NQC to be online by August 2022; and the full 3,300 MW NQC

³⁷ California Public Utilities Commission. 2019. [Decision Requiring Electric System Reliability Procurement for 2021-2023](#) (Decision 19-11-016). San Francisco, CA: California Public Utilities Commission.

to be online by August 2023. These requirements only apply to CPUC-jurisdictional LSEs, which represent approximately 90 percent of the load served in the CAISO. Affiliated LSEs conducted solicitations for replacement capacity in 2019 and 2020, and contracts for the investor-owned utilities' portion of these resources were approved by the CPUC in 2020 and 2021.³⁸ The other, non-investor-owned utility LSEs are not required to have contracts approved by the CPUC. In D.20-12-044, the CPUC established milestones and reporting deadlines of February 1 and August 1 annually for 2021-2023 for each procurement tranche.³⁹ Since then, the CPUC has periodically provided procurement progress based on LSEs' filings on its IRP Procurement Track website, which is referenced in a prior footnote. Cumulatively, LSEs surpassed the 3,300 MW NQC obligation required under D.19-11-016.

CPUC Incremental Capacity Procurement Pursuant to D.21-06-035

The CPUC adopted D.21-06-035 in June 2021, which directed CPUC-jurisdictional LSEs to procure 11,500 MW NQC of clean reliability resources to come online between August 2023 and June 2026, in addition to the 3,300 MW NQC ordered in 2019⁴⁰ to support mid-term reliability needs and the state meeting its greenhouse gas emission reduction goals.

This procurement order requires 11,500 MW NQC total in new resources, of which 2,500 MW NQC must be zero-emission resources that generate electricity, or generation resources paired with storage, to replace the capacity of Diablo Canyon. Additionally, 2,000 MW NQC must be long lead-time resources, as defined by the D.21-06-035

³⁸ See California Public Utilities (CPUC) Resolutions: CPUC. 2020. [Resolution E-5100](#). San Francisco, CA: CPUC. CPUC. 2020. [Resolution E-5101](#). San Francisco, CA: CPUC. CPUC. 2021. [Resolution E-5117](#). San Francisco, CA: CPUC. CPUC. 2021. [Resolution E-5139](#). San Francisco, CA: CPUC. CPUC. 2021. [Resolution E-5140](#). San Francisco, CA: CPUC. CPUC. 2021. [Resolution E-5142](#). San Francisco, CA: CPUC.

³⁹ California Public Utilities Commission. 2020. [Decision Establishing Process for Backstop Procurement Required by Decision 19-11-016](#) (D.20-12-044). San Francisco, CA: California Public Utilities Commission.

⁴⁰ California Public Utilities Commission. 2021. [Decision Requiring Procurement to Address Mid-Term Reliability \(2023-2026\)](#) (D.21-06-035). San Francisco, CA: California Public Utilities Commission

decision, with at least 1,000 MW of long-duration storage (able to deliver at maximum capacity for at least eight hours from a single resource) and 1,000 MW of firm capacity with zero on-site emissions or that qualifies under the renewables portfolio standard eligibility requirements and has at least an 80 percent capacity factor. Note that long lead-time resources are those that typically require greater amounts of time to procure due to a variety of associated factors, such as manufacturing times of components and equipment.

D.21-06-035 required that the total of the 11,500 MW come online as follows: 2,000 MW online by August 2023; 6,000 MW online by June 2024; 1,500 MW online by June 2025; and 2,000 MW online by June 2026.

CPUC Incremental Capacity Procurement Pursuant to D.23-02-040

In February 2023, the CPUC adopted D.23-02-040 directing CPUC-jurisdictional LSEs to procure 4,000 MW NQC of new capacity to come online by June 2026 and June 2027, in addition to the 11,500 MW NQC previously ordered in D.21-06-035.⁴¹ CPUC-jurisdictional LSEs are required to procure resources that have zero emissions or otherwise Renewable Portfolio Standard-eligible sources. D.23-02-040 also recognized the difficulties in procuring long lead-time resources by June 2026, as required by D.21-06-035, and extended those deadlines to June 2028. A subsequent order, D.24-02-047, provided additional options to extend those deadlines until June 2031 on a project-by-project basis. LSEs with signed contracts for long lead-time resources are permitted to file a request for extension for long lead-time online dates to no later than June 2031, if a good faith showing is made in a Tier 2 advice letter.⁴²

CPUC Incremental Capacity Procurement Monitoring for D.19-11-016, D.21-06-035, and D.23-02-040

The CPUC is monitoring procurement under the orders described above, including the recent IRP orders D.19-11-016, D.21-06-035, and D.23-02-040.

⁴¹ California Public Utilities Commission. 2023. [Decision 23-02-004](#). San Francisco, CA: California Public Utilities Commission.

⁴² California Public Utilities Commission. 2024. [Decision 24-02-047](#). San Francisco, CA: California Public Utilities Commission.

Between January 1, 2020, and October 31, 2025, over 18,000 MW of new NQC has come online to serve reliability.⁴³ The new resources represent over 29,000 MW Nameplate of new nameplate capacity, primarily solar and storage, with storage providing the majority of the reliability. These new resources are largely meeting the capacity requirements under the three recent CPUC IRP procurement orders for 2021-2025 described above. However, some of these 18,000 MW NQC (29,000 MW Nameplate) of new resources are not used for compliance towards IRP procurement orders since the resources were in development at the time of the issuance of the IRP procurement orders in 2019. In addition, a small number of resources are “energy-only” and do not receive a NQC capacity value for meeting peak demand or reliability requirements, and some resources may not be serving the CPUC orders if they are not under contract to a CPUC jurisdictional entity. When excluding such resources, the IRP compliance filings show that around 12,000 MW NQC of the new supply resources that have come online in this period are supporting LSE IRP order compliance. Much of the contracted capacity submitted for D.21-06-035 and D.23-02-040 compliance was for battery storage, solar, or hybrid resources. More comprehensive information about IRP procurement order compliance can be found in the CPUC Summary of Compliance.⁴⁴

LSEs also have contracts for several thousand more MWs of capacity to come online in the near future. Based on LSE contracts in place by October 2025, LSEs have contracted for over 14,000 MW NQC (20,000 MW nameplate) of new resources that are slated to come online by the end of 2028. There appears to be sufficient generation, transmission, and interconnection projects currently underway or in the project development process to meet the MW capacity requirements of the three recent CPUC procurement orders.

⁴³ California Public Utilities Commission (CPUC) October 2025 Resource Tracking Data can be downloaded from the CPUC’s website: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/summer-2021-reliability/tracking-energy-development/resource-tracking-data-october-2025-release.pdf>.

⁴⁴ [CPUC IRP Procurement Track Page](#)

CPUC Incremental Capacity Procurement Projections

Although new capacity from previously listed procurement orders continues to come online, grid reliability must be carefully monitored in the coming years, particularly as several LSEs have encountered challenges and delays in meeting some mid-term reliability procurement order requirements, demand forecasts continue to change, and unexpected retirements remain a risk. Delays by an individual LSE meeting its CPUC IRP procurement order requirements do not necessarily indicate reliability issues, since there are dozens of LSEs and procurement actualization can vary in terms of time and MWs across entities.

As referenced above, the CPUC's D.23-02-004 recognizes these challenges by automatically extending long lead-time resource procurement deadlines established via D.21-06-035.

Even considering procurement challenges, the CAISO system has added over 18,000 MW of new NQC since 2020, as shown in Table 10 above. This record-setting level of new clean energy capacity additions have been primarily driven by three CPUC procurement orders referenced above. Based on LSE contracting trends, the rate of new generation and storage resources joining the CAISO system in coming years is expected to be of similar magnitude.

A Changing Grid and Regulatory Responses

California's electrical grid is rapidly transitioning to integrate a variety of clean energy resources that support meeting state greenhouse gas reduction goals and driven in part by statutory requirements, regulations, policy and other market forces. The state is aware that extreme events, such as heatwaves and wildfires, can possibly threaten grid reliability while these new resources are built out. In response, Assembly Bill 205 established the state's Strategic Reliability Reserve to bolster grid reliability in the interim, as referenced in Section IV of this report.

Under Assembly Bill 205, the CEC and the California Department of Water Resources (DWR) were authorized as administrators of complementary programs under the

Strategic Reliability Reserve to ensure a reliable and equitable transition to a clean energy future while California expands its clean generation fleet. Specifically, the CEC oversees the:

- Demand-Side Grid Support Program, a temporary emergency measure that creates incentives for utility customers to further reduce load and dispatch incremental backup generation with existing resources on an on-call basis, and the
- Distributed Electricity Backup Assets Program, which provides incentives for clean and efficient distributed energy resource construction.

The DWR's Statewide Energy Office manages the ESSRRP, which is authorized to develop, own, or contract for new emergency and temporary generation to provide incremental power during extreme events and extend the operations of existing resources that would have otherwise retired.

Senate Bill 846 Reliability Reporting

On September 2, 2022, Governor Gavin Newsom signed Senate Bill 846 into law, which extended the OTC Policy final compliance dates for Diablo Canyon's generating units, and required the CEC and the CPUC to provide quarterly joint Reliability Planning Assessments to the Legislature. These assessments must identify estimates for the electrical supply and demand balance for the forward five- and ten-year period under high-, medium-, and low-risk scenarios. CPUC and CEC staff continue to ensure Senate Bill 846 compliance and collaborate on these quarterly joint Reliability Planning Assessments to provide an important analysis of statewide grid reliability by comparing the procurement, generation, and transmission resources discussed in this SACCWIS report against the newest reliability forecasts available.

LADWP BAA and OTC Replacement Milestones

This section describes the LADWP BAA, which is separate from the CAISO BAA. The LADWP BAA spans two broad geographic regions: the Greater Los Angeles Metropolitan Region and the area encompassing the Owens Valley in Eastern California. The LADWP BAA contains three operational gas-fired OTC power plants: Harbor Generating Station

(Harbor), Haynes Generating Station (Haynes), and Scattergood Generating Station (Scattergood).

On February 12, 2019, Los Angeles Mayor Eric Garcetti introduced the Los Angeles Green New Deal, which included a provision that the LADWP will transition to 100 percent renewable energy by 2045 to help address climate change.⁴⁵ September 2021, the Los Angeles City Council adopted a motion to accelerate this timeline, which directed the LADWP to procure 100 percent zero-carbon electricity by 2035.⁴⁶

This direction disrupted the LADWP's previous plans to comply with the OTC Policy that included repowering the three OTC power plants within its BAA with non-OTC, fossil-fueled combined cycle generating turbines. As a result, the LADWP requested to extend the OTC Policy final compliance date for Scattergood from December 31, 2024, to December 31, 2029. At the September 30, 2022 SACCWIS meeting a majority committee supported the LADWP's request. On August 15, 2023, the State Water Board adopted the 2023 OTC Policy Amendment, which extended Scattergood's OTC Policy final compliance date as requested by the LADWP.

The LADWP provided information requested by the State Water Board for the 2023 OTC Policy Amendment, which indicated their intent to comply with the OTC Policy for Scattergood by transitioning to using recycled water for cooling purposes and their intent to construct hydrogen-capable generation capacity. Additionally, the LADWP's 2022 Long Term Strategic Long-Term Resource Plan indicates that the LADWP assumes hydrogen generating units will be constructed during the 2030s and 2040s at Harbor and Haynes.⁴⁷

The State Water Board adopted Resolution No. 2023-0025, directing the Executive Director to, as soon as feasible, issue an order pursuant to Water Code section 13383 requiring the LADWP to provide a written plan identifying semi-annual milestones necessary to attain OTC Policy final compliance for all three of its facilities by their

⁴⁵ Office of Los Angeles Mayor Eric Garcetti. 2019. [Los Angeles' Green New Deal Sustainable City Plan](#). Los Angeles, CA: Los Angeles Mayor's Office.

⁴⁶ City of Los Angeles. 2021. [Motion](#). Los Angeles, CA: City of Los Angeles.

⁴⁷ Los Angeles Department of Water and Power. 2022. [The 2022 Strategic Long-Term Resource Plan](#). Los Angeles, CA: Los Angeles Department of Water and Power.

compliance dates. This order also requires the LADWP to report information demonstrating progress towards attaining the milestones and compliance in writing at least by January 31 of each year and present the information in conjunction with the annual SACCWIS report at a publicly noticed State Water Board meeting. Following the 2024 SACCWIS annual report and consideration of the LADWP progress report, the State Water Board will consider whether an enforceable schedule in a National Pollutant Discharge Elimination System (NPDES) permit or an appropriate enforcement order is necessary to ensure continued progress by the LADWP to meet the December 31, 2029 compliance date.

The order was sent to the LADWP on February 6, 2024, and the LADWP responded with a letter on April 8, 2024, stating its semi-annual milestones. The State Water Board subsequently requested additional compliance milestone information for Harbor and Haynes, for which the LADWP indicated it would have additional responsive information to share at the 2025 SACCWIS annual meeting. The order also required the LADWP to submit a letter demonstrating progress towards attaining the milestones and final compliance by November 15, 2024, and by November 15 of each subsequent year until Scattergood, Harbor, and Haynes attain OTC Policy final compliance. The LADWP submitted letters on November 15, 2024, and November 17, 2025.

The LADWP's April 8, 2024 letter to the State Water Board's Executive Director, indicated three general project phases must be completed to eliminate OTC for its OTC power plants. These phases include pre-construction, construction, and post-construction activities. Pre-construction activities broadly consist of: planning and development, local ordinance planning and compliance, Board of Water and Power Commissioners' consideration and approval, California Environmental Quality Act and environmental permitting, equipment procurement, Request for Proposal (RFP) processing and contractor selection, noticing to proceed, and design. Construction activities include site preparation, environmental training, and build-out. Finally, post-construction activities include commissioning and work associated with operating and permitting.

The LADWP's November 17, 2025 letter to the State Water Board's Executive Director reporting on progress towards attaining milestones and OTC Policy final compliance, demonstrates some progress for Harbor, Haynes, and Scattergood, but also indicates delays for the Harbor and Haynes milestones previously provided in their November 15, 2024 letter. Here is a summary of what has changed from the November 2024 report submissions:

- Haynes Generating Station Unit 8: Pre-construction activities will continue through Semester 2 of 2026, delaying construction and post-construction activities by 1 semester.
- Haynes Generating Station Units 1 and 2: Pre-construction activities will continue through Semester 1 of 2027, delaying construction and post-construction activities by 1 semester.
- Harbor Generating Station Unit 5: Pre-construction activities will continue through Semester 2 of 2027, delaying construction by 2 semesters. As a result, construction would continue into Semester 2 of 2029 and post-construction activities and ceasing OTC operations would occur in late 2029.

Overall, the LADWP identified that post-construction would occur in Semester 2 of 2029 for all OTC units at these three power plants.

Table 11 illustrates when the LADWP anticipates initiating and completing each of these phases for each OTC replacement project as of 2024. Table 12 illustrates the updated milestones for each OTC replacement project as of the LADWP's November 2025 annual progress letter. Tables 11 and 12 include the following abbreviations: Semester 1 (S1) which includes January 1 through June 30 of a given year, Semester 2 (S2) which includes July 1 through December 31 of a given year, pre-construction activities (PC), construction activities (CO), and after-construction activities (AC). Red bolded text in Table 12 indicates changes to the semi-milestones from what was reported in the November 2024 progress letter.

**Table 11: 2024 OTC Policy Compliance Milestone Projections for
LADWP OTC Power Plants**

Facility and Units	2024 S1	2024 S2	2025 S1	2025 S2	2026 S1	2026 S2	2027 S1	2027 S2	2028 S1	2028 S2	2029 S1	2029 S2
Scattergood	PC	PC	PC	PC	PC	CO	CO	CO	CO	CO	CO	AC
Haynes Unit 8	PC	PC	PC	PC	PC	CO	CO	CO	CO	CO	AC	AC
Haynes Units 1 and 2	PC	PC	PC	PC	PC	PC	CO	CO	CO	CO	CO	AC
Harbor Unit 5	PC	PC	PC	PC	PC	PC	CO	CO	CO	CO	CO	AC

**Table 12: 2025 OTC Policy Compliance Milestone Projections for
LADWP OTC Power Plants**

Facility and Units	2024 S1	2024 S2	2025 S1	2025 S2	2026 S1	2026 S2	2027 S1	2027 S2	2028 S1	2028 S2	2029 S1	2029 S2
Scattergood	PC	PC	PC	PC	PC	CO	CO	CO	CO	CO	CO	AC
Haynes Unit 8	PC	PC	PC	PC	PC	PC	CO	CO	CO	CO	CO	AC
Haynes Units 1 and 2	PC	PC	PC	PC	PC	PC	CO	CO	CO	CO	CO	AC
Harbor Unit 5	PC	PC	PC	PC	PC	PC	PC	PC	CO	CO	CO	CO/AC

LADWP BAA and OTC Replacement Milestone Updates

The LADWP provided the State Water Board with three submissions containing information and updates on its progress towards attaining OTC Policy final compliance for each of its power plants. These updates were provided on April 8, 2024, November 15, 2024, and November 17, 2025. This section summarizes the LADWP's submissions.

Harbor: As of November 2025, the LADWP was in the planning phase for the Harbor Unit 5 Cooling System Retrofit Project. The LADWP is evaluating the Harbor Unit 5 Cooling System Retrofit project under California Environmental Quality Act and publicly released the Mitigated Negative Declaration on December 18, 2025. Additionally, the LADWP expected to submit a Coastal Development Permit application to the California Coastal Commission by the end of 2025; however, that application had not been received as of March 3, 2026.

Haynes: As of November 2025, the Haynes Unit 8 Recycled Water-Cooling System Retrofit Project Initial Study/Mitigated Negative Declaration was adopted on February 8, 2022. Additionally, Haynes Units 1 and 2 remain in the planning phase. The LADWP received a decision from the South Coast Air Quality Management District (South Coast AQMD) that the cooling tower is exempt from permitting requirements. The LADWP will advertise a RFP for a Progressive Design-Build contract by the end of 2025. The contracts for the recycled water pipeline construction and construction management were approved by the Long Beach Utilities Commission on November 6, 2025, with a targeted construction mobilization in January 2026. The LADWP continues to work with local sanitation districts for future sanitary sewer discharge options.

Scattergood: As of November 2025, the LADWP was engaged in pre-construction activities for the Scattergood Modernization Project, which includes replacing Units 1 and 2 with a combined-cycle generating system capable of operating on a fuel mixture of natural gas and hydrogen.

The LADWP provided the State Water Board with the following updates in its November 2025 submission:

- The LADWP held a Notice of Preparation public scoping meeting on June 6, 2023. All oral comments from the Notice of Preparation public meeting as well as written comments received were being addressed and considered in the draft Environmental Impact Report.
- The draft Environmental Impact Report was released for public review on October 31, 2024, for a 159-day review period ending April 7, 2025. The Final Environmental Impact Report was approved by the LADWP Board of Commissioners on October 28, 2025
- The air permit applications from three original equipment manufacturers for the combined-cycle generating system were submitted to South Coast AQMD in May 2024, August 2024, and October 2024, respectively.⁴⁸ The South Coast AQMD has completed their evaluation of the air permit applications and the next step involves South Coast AQMD's submittal of the permits to the U.S. EPA for review. The U.S. EPA's 45-day review and comment period will coincide with the public review/comment period, which typically lasts for 30 days. The South Coast AQMD will issue the final permit to LADWP after the comment period closes and the LADWP chooses the vendor.
- The application process for the Industrial Waste Permit for the sanitary sewer discharges from Scattergood is underway. All in-plant waste streams and stormwater will be directed to the Hyperion Treatment Plant located adjacent to Scattergood. An Industrial Waste Permit is expected to be issued in the fourth quarter of 2026.

The LADWP's initial April 2024 submission to the State Water Board indicated that the development of the RFPs for the design and build contractor was underway; the target release date for the RFPs was 4th Quarter 2024. The CEQA process began in 2023 and

⁴⁸ The Los Angeles Department of Water and Power (LADWP) submitted three different sets of applications for three different turbine manufacturers. As of November 2025, LADWP advised they will not be using one turbine vendor and the permit to construct applications associated with that vendor were cancelled. The South Coast AQMD will be issuing the final Title V permit reflecting the selected turbine manufacturer once that decision is made by LADWP. The South Coast AQMD will cancel the other turbine permit to construct application.

the Final Environmental Impact Report was approved by the LADWP Board of Commissioners on October 28, 2025, and LADWP's RFP process was completed in November 2025

On November 17, 2025, the LADWP submitted information to the State Water Board that was consistent with the anticipated final compliance schedule for Scattergood.

On January 16, 2026, the LADWP indicated to State Water Board staff that meeting the December 31, 2029 OTC Policy compliance date would require receipt of new turbines by late 2026, that internal procurement requirements delayed contracting for those turbines, and that due to the delay, LADWP is currently scheduled to receive the turbines required for the energy transition in September 2029. The LADWP did not indicate any plans to modify the construction schedule to staff at that time.

The SACCWIS will continue to monitor the LADWP's progress towards attaining OTC Policy final compliance for Harbor, Haynes, and Scattergood.

VI. Regulatory Considerations and Permitting

The following section describes water quality and air quality regulatory requirements and procedures. Any extension or expansion of existing power plants that require development, as defined in the Coastal Act Section 30106, would require a California Coastal Commission or Local Coastal Program coastal development permit in addition to applicable water and air quality requirements. Further, several OTC power plants maintain leases with the California State Lands Commission that permit the usage of infrastructure necessary for operations (e.g., seawater intake structures) on state lands, and any changes to these facilities may require an application for a new lease. These actions are separate and distinct from the power plant contracting process.

Water Quality

The following section describes water quality related considerations for the operational OTC power plants.

Alamitos

Alamitos' OTC units in operation include Units 3, 4, and 5, and the power plant's OTC Policy final compliance date is December 31, 2026. On November 12, 2020, the Los Angeles Regional Water Quality Control Board (Los Angeles Regional Water Board) adopted Order R4-2020-0134, which renewed the waste discharge requirements and NPDES permit for Alamitos.⁴⁹ Order R4-2020-0134 prescribes effluent limitations for the discharge of OTC water and low-volume wastes to the San Gabriel River Estuary and for the discharge of stormwater to the Los Cerritos Channel Estuary. Alamitos is permitted to discharge 729 million gallons a day (MGD) of effluent, including OTC water. Its combined design flow for Units 3 through 6 is 1,066 MGD, as listed in the 2010 Final Substitute Environmental Document (2010 Final SED).⁵⁰ The operating flow is currently below the design flow capacity and reflected by the power plant's current permit limits, as Alamitos Unit 1, 2, and 6 were retired by December 31, 2020. Alamitos' cooling water intake structure is in a canal connected to the Los Cerritos Channel Estuary.

The Alamitos NPDES permit issued by the Los Angeles Regional Water Board expired on December 31, 2025. On November 16, 2023, the Los Angeles Regional Water Board renewed the associated Time Schedule Order (TSO).⁵¹ The TSO set interim effluent limitations for temperature, copper, and enterococcus through December 31, 2025. A Report of Waste Discharge (ROWD) application package for NPDES permit renewal was submitted to the Los Angeles Regional Water Board on July 2, 2025. The Los Angeles Regional Water Board accepted the ROWD package as complete on July 16, 2025. On July 23, 2025, the Los Angeles Regional Water Board provided comments to AES regarding their review of the Climate Change Plan, which was submitted with the ROWD application package as required by the NPDES permit for the facility. A revised Climate Change Plan was submitted to the Los Angeles Regional Water Board on October 22,

⁴⁹ Los Angeles Regional Water Quality Control Board. 2020. [Water Quality Order R4-2020-0134](#). Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

⁵⁰ State Water Resources Control Board. 2010. [Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling – Final Substitute Environmental Document](#). Sacramento, CA: State Water Resources Control Board.

⁵¹ Los Angeles Regional Water Quality Control Board. 2023. [Time Schedule Order R4-2023-0371](#). Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

2025. Order R4-2020-0134 remains in effect pending further Los Angeles Regional Water Board action.

Diablo Canyon

Diablo Canyon's OTC units in operation include Unit 1 and 2, and the power plant's OTC Policy final compliance date is October 31, 2030. On July 12, 1985, the Central Coast Regional Water Quality Control Board (Central Coast Regional Water Board) adopted NPDES permit No. CA0003751 for Diablo Canyon, which was renewed in 1990 via Order R3-1990-0009.⁵² Order R3-1990-0009 prescribes effluent limitations for the discharge of multiple sources of wastewater, including OTC water to Diablo Cove. Diablo Canyon is permitted to discharge 2,540 MGD of effluent, including OTC water. Its design flow is 2,528 MGD, as listed in the 2010 Final SED. Diablo Canyon's cooling water intake structure is in the power plant's intake cove.

The Central Coast Regional Water Board adopted Order R3-2026-0001 on February 26, 2026, which will not be effective until 50 days after the Central Coast Regional Water Board's approval date. Until then the previous order, Order R3-1990-0009, remains in effect.

Harbor

Harbor's OTC unit in operation is Unit 5, and the power plant's OTC Policy final compliance date is December 31, 2029. On February 27, 1995, the Los Angeles Regional Water Board adopted Order No. 95-027, which implemented waste discharge requirements and NPDES permit No. CA0000361 for Harbor.⁵³ The Los Angeles Regional Water Board renewed these requirements in 2003 via Order R4-2003-0101.⁵⁴ Order R4-2003-0101 prescribes effluent limitations for the discharge of OTC water and demineralizer regeneration wastewater into the Los Angeles Harbor's West Basin. Harbor

⁵² Central Coast Regional Water Quality Control Board. 1990. Order No. R3-1990-0009. San Luis Obispo, CA: Central Coast Regional Water Quality Control Board.

⁵³ Los Angeles Regional Water Quality Control Board. 1995. [Order No. 95-027](#). Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

⁵⁴ Los Angeles Regional Water Quality Control Board. 2003. [Order. No. R4-2003-0101](#). Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

is permitted to discharge 108 MGD of effluent, including OTC water. Its design flow is 108 MGD, as listed in the 2010 Final SED. Harbor's cooling water intake structure is located in the Los Angeles Harbor.

Order R4-2003-0101 remains in effect pending further Los Angeles Regional Water Board action. To date, the Los Angeles Regional Water Board has not issued a final NPDES permit to the LADWP. In September 2024, the LADWP submitted a letter to support the request of a TSO and compliance schedule. In September 2025, LADWP received a letter from the Los Angeles Regional Water Board noting that the LADWP did not include additional information or provide a schedule to achieve compliance with proposed effluent limitations for total residual chlorine and temperature. The LADWP is in the process of preparing a TSO, compliance schedule, or variance under Clean Water Act Section 303(g) for submittal to the Los Angeles Regional Water Board.

Haynes

Haynes' OTC units in operation include Unit 1, 2, and 8, and the power plant's OTC Policy final compliance date is December 31, 2029. In 2000, the Los Angeles Regional Water Board adopted Order No. 00-081, which implemented waste discharge requirements and NPDES permit No. CA0000353 for Haynes.⁵⁵ The Los Angeles Regional Water Board revised these requirements in 2004 via Order R4-2004-0089.⁵⁶ Order No. 00-081 prescribes effluent limitations for multiple discharges of wastewater, including OTC water into the San Gabriel River. Haynes is permitted to discharge 1,014 MGD of effluent, including OTC water. Its design flow is 968 MGD, as listed in the 2010 Final SED. The operating flow is currently below the design flow capacity, as Haynes Units 5 and 6 were retired by December 31, 2013. Haynes' cooling water intake structure is located in the Long Beach Marina.

⁵⁵ Los Angeles Regional Water Quality Control Board. 2000. Order No. 00-081. Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

⁵⁶ Los Angeles Regional Water Quality Control Board. 2004. [Order No. R4-2004-0089](#). Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

Order No. 00-081 remains in effect pending further Los Angeles Regional Water Board action. The LADWP continues to explore sewer discharge options with local sanitation districts, including Los Angeles County Sanitation District and Orange County Sanitation District. The LADWP also intends to maintain NPDES permit coverage for wastewater discharges as a backup option for when sewer discharge is not feasible/available.

The LADWP submitted an ROWD application package to the Los Angeles Regional Water Board to renew the Haynes NPDES permit. The LADWP will need to obtain a TSO or compliance schedule to meet new permit effluent limitations. In September 2025, the Los Angeles Regional Water Board noted that they will proceed with updates on the tentative Haynes NPDES permit and will consider a TSO, compliance schedule, or variance. The LADWP is in the process of preparing a TSO, compliance schedule, or variance under Clean Water Act Section 303(g) for submittal to the Los Angeles Regional Water Board.

Huntington Beach

Huntington Beach's OTC unit in operation includes Unit 2, and the power plant's OTC Policy final compliance date is December 31, 2026. On December 4, 2020, the Santa Ana Regional Water Quality Control Board (Santa Ana Regional Water Board) adopted Order R8-2020-0040, which renewed the waste discharge requirements and NPDES permit for Huntington Beach.⁵⁷ Order R8-2020-0040 prescribes effluent limitations for the discharge of multiple sources of wastewater, including OTC water to the Pacific Ocean. Huntington Beach is permitted to discharge 127 MGD of effluent, including OTC water. Its design flow is 514 MGD, as listed in the 2010 Final SED. The operating flow is currently below the design flow capacity and reflected by the power plant's current permit limits, as Huntington Beach Units 1, 3, and 4 were retired by December 31, 2020. Huntington Beach's cooling water intake structure is located in the Pacific Ocean.

The Huntington Beach NPDES permit issued by the Santa Ana Regional Water Board expired on December 31, 2025. An ROWD application package for the NPDES permit

⁵⁷ Santa Ana Regional Water Quality Control Board. 2020. [Order No. R8-2020-0040](#). Riverside, CA: Santa Ana Regional Water Quality Control Board.

renewal was submitted to the Santa Ana Regional Water Board on July 2, 2025. The application is still under review, and no further updates have been received. Order R8-2020-0040 remains in effect pending further action from the Santa Ana Regional Water Board.

Ormond Beach

Ormond Beach's OTC units in operation include Unit 1 and 2, and the power plant's OTC Policy final compliance date is December 31, 2026. On November 12, 2020, the Los Angeles Regional Water Board adopted Order R4-2020-0132, which renewed the waste discharge requirements and NPDES permit for Ormond Beach.⁵⁸ Order R4-2020-0132 prescribes effluent limitations for the discharge of OTC water, low-volume wastes, and stormwater to the Pacific Ocean. Ormond Beach is permitted to discharge 688.2 MGD of effluent, including OTC water. Its design flow is 685 MGD, as listed in the 2010 Final SED. Ormond Beach's cooling water intake structure is in the Pacific Ocean.

The Ormond Beach NPDES permit issued by the Los Angeles Regional Water Board expired on December 31, 2025. Ormond Beach submitted a permit renewal ROWD application package for NPDES Permit CA0001198, Order No. R4-2020-0132 to the Los Angeles Regional Water Board on May 15, 2025, before the regulatory deadline. The Los Angeles Regional Water Board accepted the ROWD application package as completed on August 11, 2025. Order R4-2020-0132 remains in effect pending further Los Angeles Regional Water Board action.

Scattergood

Scattergood's OTC units in operation include Unit 1 and 2, and the power plant's OTC Policy final compliance date is December 31, 2029. On February 11, 2016, the Los Angeles Regional Water Board adopted Order R4-2016-0055, which renewed the waste discharge requirements and NPDES permit for Scattergood.⁵⁹ Order R4-2016-0055

⁵⁸ Los Angeles Regional Water Quality Control Board. 2020. [Order No. R4-2020-0132](#). Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

⁵⁹ Los Angeles Regional Water Quality Control Board. 2016. [Order No. R4-2016-0055](#). Los Angeles, CA: Los Angeles Regional Water Quality Control Board.

prescribes effluent limitations for the discharge of OTC water, industrial process waters, and stormwater to the Pacific Ocean. Scattergood is permitted to discharge 226 MGD of effluent, including OTC water. Its design flow is 495 MGD, as listed in the 2010 Final SED. The operating flow is currently below the design flow capacity and reflected by the power plant's permit limits, as Scattergood Unit 3 was retired by December 31, 2015. Scattergood's cooling water intake structure is located in the Santa Monica Bay.

On March 18, 2021, the Los Angeles Regional Water Board administratively extended the Scattergood NPDES permit after receiving a complete ROWD application package from the LADWP. The Order R4-2016-0055 terms and conditions continue to be in full effect pending action on a new or revised permit by the Los Angeles Regional Water Board. LADWP submitted an ROWD application package to renew the Scattergood NPDES permit to the Los Angeles Regional Water Board. In September 2025, the Los Angeles Regional Water Board sent a letter to LADWP noting that they will proceed with updates on the tentative Scattergood NPDES permit. The Los Angeles Water Board expects to issue the permit in 2026.

Air Quality

Air Quality Regulatory Structure

The U.S. EPA, CARB, and California's 35 local air quality management and air pollution control districts (air districts) comprise a three-tiered system for addressing California air pollution. All power plants that operate in the state and produce emissions are permitted by air districts, which require scheduled monitoring and reporting from the operators to ensure compliance with applicable rules and regulations. The air districts, in coordination with U.S. EPA and CARB, develop regional air quality management plans for attaining and maintaining health-based ambient air quality standards. The air districts set and enforce emissions standards for local sources, including power plants. The South Coast AQMD is the air district whose jurisdiction covers all of Orange County and the non-desert regions of Los Angeles County, San Bernardino County and Riverside County, including the Coachella Valley. The Ventura County Air Pollution Control District (VCAPCD) jurisdiction encompasses Ventura County. The remaining operational non-nuclear OTC

units (those listed in Table 2 of this report) are all located within these two air districts. The following sections describe air-related regulatory considerations for those OTC units. Diablo Canyon is not included because it is a nuclear generation facility, and therefore the generating units do not directly emit air pollutants including greenhouse gases while operating.

Permitting and Compliance

Each operating OTC power plant has a current federal Clean Air Act Title V permit and can continue operating in accordance with its permit, subject to renewal requirements. The Huntington Beach Title V permit expires in 2027. The Harbor Title V permit was renewed in November 2024 and expires in 2029. Ormond Beach's Title V permit was renewed by the VCAPCD on December 10, 2025, and it is valid through 2028. Operation of Alamitos through 2026, and Scattergood and Haynes through 2029, requires that each facility apply to renew its Title V permit in accordance with air district permitting procedures and timelines, including any public notice requirements.⁶⁰ The South Coast AQMD received Title V permit renewal applications for Scattergood, Haynes, and Alamitos on the following respective dates: July 17, 2024; August 2, 2024; and October 22, 2024. These permit renewal applications are in various stages of review. Title V permits may include conditions establishing air pollutant emission standards, limits on fuel consumption, visible emission standards, and other air program requirements.

The OTC power plants are in compliance with applicable rules and regulations as of October 2025 based on information available to CARB, South Coast AQMD, and VCAPCD. This subsection covers Notices of Violation and Notices to Comply (NTCs) issued from August 30, 2024, to October 31, 2025. VCAPCD indicated that there are no

⁶⁰ The current Title V permit expiration dates for the plants in the South Coast Air Quality Management District (South Coast AQMD) are: Alamitos Generating Station – April 21, 2025; Scattergood Generating Station – January 13, 2025; Harbor Generating Station – November 5, 2029; Haynes Generating Station – January 30, 2025; and Huntington Beach Generating Station – March 22, 2027. Submittal of a renewal application to SCAQMD between 180 days and 545 days prior to expiration of their Title V permit qualifies as an application shield to continue operating under the terms and conditions of the permit until it is renewed.

Notices of Violation or NTCs for Ormond Beach issued during this timeframe. For the facilities in South Coast AQMD, the district issued a total of four Notices of Violation and two NTCs to Alamitos, Scattergood, and Haynes during this timeframe; in addition, CARB issued one Notice of Violation to the LADWP. Alamitos received one Notice of Violation related to the operation of its nitrogen oxides (NO_x) Continuous Emissions Monitoring System (CEMS) used in determining the emission rate from each source. Scattergood received one NTC related to recordkeeping, which was resolved within days by correcting a date on a required form. Haynes received three Notices of Violation and one NTC. One Notice of Violation was for inaccurate Quarterly Certification of Emissions in the 1st, 2nd, and 3rd quarters of 2024; one Notice of Violation was for failure to comply with the hourly NO_x emission limit for the 7th and 8th hours of September 28, 2024, and failure to inject ammonia at all times for combined-cycle gas turbine Unit 9; and one Notice of Violation was for failure to conduct daily CEMS calibration on March 12, 2023, for power generating boiler Unit 1.⁶¹ The NTC was related to an error applying missing data procedures for CEMS and submitting reports with inaccurate emissions. LADWP's Notice of Violation from CARB was issued for reporting errors in the 2020, 2021, and 2022 annual reports, submitted under the Regulation for Reducing Greenhouse Gas Emissions from Gas-Insulated Equipment (GIE Regulation). The GIE Regulation applies to GIE equipment owned by the LADWP and cannot be attributed to a specific facility. Alamitos' Notice of Violation is still pending; all other compliance actions have been resolved.⁶²

Rulemaking

VCAPCD does not anticipate future air district rule changes that would directly impact generation at Ormond Beach through its 2026 compliance date. Ormond Beach Power intends to permanently shut down and retire Ormond Beach Units 1 and 2 per the final compliance date listed in the OTC Policy and does not plan to retrofit these existing units

⁶¹ Notice of Violation was issued on November 19, 2024, with the violation occurring on March 12, 2023.

⁶² Information is available through the [South Coast Air Quality Management District's Facility Information Detail \(F.I.N.D\) web tool](#).

with alternate cooling technologies to comply with OTC Policy Track 1 or use operational or technical measures to comply with Track 2.

South Coast AQMD Rule 1135 and Rule 429.2 are the two key rules that apply to new and existing electric generating facilities in South Coast AQMD. Rule 1135 sets Best Available Retrofit Control Technology level emissions standards for NO_x. OTC power plants that plan to comply with the OTC Policy by retiring their OTC generating emissions units are exempt from the Best Available Retrofit Control Technology standards through their OTC Policy compliance dates, including approved extensions, but no later than December 31, 2029. This provision applies so long as the generating emissions units retain their NO_x and ammonia limits, startup, shutdown, and tuning requirements; and the units meet pollutant averaging times in the current permits; the units retire by their compliance dates established in Table 1 of Section 2(B) of the OTC Policy; and facilities provide proper notification to the South Coast AQMD of any extensions. However, owners or operators that remove the OTC system to comply with the OTC Policy, but continue operating the generating emissions units, will be expected to comply with Rule 1135 NO_x emission limits for boilers and gas turbines, or use the Rule 1135 (g)(1) exemption for combined-cycle gas turbines installed prior to November 2, 2018, which provides some additional flexibility on meeting the NO_x emission limit.

Rule 429.2 is a companion rule to Rule 1135 that establishes requirements for generating unit startup, shutdown, and malfunction events, along with monitoring, recordkeeping, and reporting requirements. Rule 429.2 exempts OTC units that will be retired by the OTC Policy compliance date from certain provisions through December 31, 2029, including startup and shutdown duration limits, limits to the number of startups, and installing a temperature device. Therefore, any plan modifications that will keep an existing gas generating unit operational and instead achieve OTC Policy compliance through replacement with non-OTC alternate cooling technology, will no longer qualify for the Rule 429.2 exemption for OTC units scheduled for retirement.

Alamitos and Huntington Beach

AES intends to permanently shut down and retire Alamitos Units 3, 4, and 5 and Huntington Beach Unit 2 per the compliance dates listed in the OTC Policy and does not plan to retrofit these existing units with alternate cooling technologies to comply with OTC Policy Track 1 or use operational or technical measures to comply with Track 2. Therefore, these units qualify for the OTC exemptions in Rule 1135 and Rule 429.2.

Harbor

The LADWP plans to keep Harbor Unit 5 operational and replace the OTC system with alternate cooling technology, which is still in the planning phase. The natural gas-fueled combined-cycle turbines (Units 1 and 2) associated with Harbor Unit 5 had their combustors upgraded to dry low-NO_x burners and are also equipped with post-combustion selective catalytic reduction to comply with the Rule 1135 NO_x limit for combined-cycle units. The units are also in compliance with the startup/shutdown duration, fuel oil readiness testing, and NO_x control temperature measuring device requirements in Rule 429.2.

Haynes

Haynes Units 1 and 2 already comply with the NO_x emission limit for boilers in Rule 1135, as well as the startup/shutdown duration, fuel oil readiness testing, and NO_x control temperature measuring device requirements in Rule 429.2.

The LADWP plans to keep Haynes Unit 8 operational and replace the OTC system with a wet cooling system that utilizes reclaimed water. The natural gas-fueled combined-cycle turbines (Units 9 and 10) associated with Haynes Unit 8 are currently in compliance with the Rule 1135 NO_x limit for combined-cycle units. The units are also in compliance with Rule 429.2 startup/shutdown duration, fuel oil readiness testing, and NO_x control temperature measuring device requirements.

Scattergood

The LADWP plans to eliminate the use of OTC and repower Scattergood Units 1 and 2 with a new natural gas-capable and hydrogen-ready combined-cycle gas turbine. South

Coast AQMD completed their review of the permit-to-construct applications for the Scattergood Modernization Project and submitted the proposed modified Title V permit, which includes the project, to U.S. EPA on November 20, 2025, for 45-day review. Additionally, in accordance with South Coast AQMD rules, the project requires 30-day public comment period, and the facility is responsible for ensuring notification of the 30-day public review to all addresses within a quarter mile of the outer facility boundary. South Coast AQMD posted the public notice for the project to the Los Angeles Daily Journal newspaper on November 26, 2025.

Any future projects to modify existing emissions units or install new emissions units at the facilities will need to go through the appropriate permit application and review processes of the respective air district. This would include meeting applicable source-specific rule requirements in addition to New Source Review requirements, including Best Available Control Technology and emission offsets.

VII. Conclusions

The SACCWIS does not recommend any changes to the OTC Policy final compliance schedules for associated generating facilities. The agencies of the SACCWIS continue to assess reliability impacts to the electric grid, the progress of procurement and new generation development, and progress in meeting air quality and climate goals.

Energy procurement to meet CPUC procurement orders is ongoing, and the CPUC continues to monitor progress towards meeting these orders and changing grid conditions. Consistent with the cycle of energy project development, existing contracts may face delays, and some new contracts will be added. Significant progress has been made deploying new and clean generation. Additionally, the CPUC, CEC, and CAISO continue to monitor statewide resource development and reliability needs. The CPUC, CEC, and CAISO will continue to monitor procurement and progress of new resource development, and update grid reliability assessments in quarterly reports pursuant to Senate Bill 846. The SACCWIS may convene in future years, as needed or requested by a SACCWIS member agency, to advise the State Water Board on the implementation of

the OTC Policy compliance schedule and grid reliability concerns impacting existing power plants.

VIII. APPENDIX A:
AVERAGE ANNUAL FLOW RATE DATA FOR ONCE-THROUGH COOLING FACILITIES

	Average Annual Flow Rate in Million Gallons per Day (MGD)								
Power Plant Name	2010	2011	2012	2013	2014	2015	2016	2017	2018
Humboldt Bay Power Plant Units 1&2	0	0	0	0	0	0	0	0	0
Potrero Power Plant	152	0	0	0	0	0	0	0	0
Contra Costa Generating Station	15.4	33	53	17	0	0	0	0	0
Pittsburg Power Plant	18.8	16.9	79	48.8	26	67	32	0.07	0
Moss Landing Power Plant	289.9	212.3	396.4	353.6	244.9	312.5	231	135.2	200.3
Diablo Canyon Nuclear Power Plant	2,347	2,368	2,277	2,311	2,242	2,360	2,372	2,286.4	2,338
Morro Bay Power Plant	21.5	41.7	50.2	22.7	0.2	0	0	0	0
El Segundo Generating Station	112.9	97	197	217	107	135	7	4.58	0
Haynes Generating Station Units 1&2	720	812	886	725	471	506	448	355.5	441
Scattergood Generating Station	276.4	299	296.8	272	244	311	151	109.8	108
Harbor Generating Station	45.5	44.0	47.3	46.8	49.6	49.1	47	50.07	46
Alamitos Generating Station	2.9	106	375	496	332	324	317	316.21	114.74*
Redondo Beach Generating Station	59	180	178	95	107	142	95	156.95	75.3*
Mandalay Generating Station	39.7	56	77	109	63	78	56	48.4	3
Ormond Beach Generating Station	12	18	71	133	68	98	60	86.6	117.9
Huntington Beach Generating Station	202.9	242.6	238.5	178	169	159.6	134	134.2	114.5

	Average Annual Flow Rate in Million Gallons per Day (MGD)								
Power Plant Name	2010	2011	2012	2013	2014	2015	2016	2017	2018
South Bay Power Plant	34.5	0	0	0	0	0	0	0	0
Encina Power Station	211.9	314.5	531.1	264.0	338.6	410.2	325	387.8	356.1
San Onofre Nuclear Generating Station	2,030	2,256	1,677	1,003	42	42	37	0	0
Total	6,592.3	7,097	7,430.3	6,291.9	4,504.3	4,994.4	4,312	4,071.8	3,915.9

Source: U.S. EPA Flow Data, (Intergraded Compliance Information System [ICIS] Database). Last updated November 2025.

AVERAGE ANNUAL FLOW RATE DATA FOR ONCE-THROUGH COOLING FACILITIES (CONTINUED)

	Average Annual Flow Rate (MGD)					
Power Plant Name	2019	2020	2021	2022	2023	2024
Humboldt Bay Power Plant Units 1&2	0	0	0	0	0	0
Potrero Power Plant	0	0	0	0	0	0
Contra Costa Generating Station	0	0	0	0	0	0
Pittsburg Power Plant	0	0	0	0	0	0
Moss Landing Power Plant	236.2	241.2	241.7	257.4	260.1	228.64
Diablo Canyon Nuclear Power Plant	2,067	2,282	2,212	2287.4	2313.83	2320.24
Morro Bay Power Plant	0	0	0	0	0	0
El Segundo Generating Station	0	0	0	0	0	0
Haynes Generating Station Units 1&2	398.7	467.0	472.0	390.3*	382.1	335.69
Scattergood Generating Station	98.1	124.0	92.0	99.1	80.1	79.82
Harbor Generating Station	48.1	45.0	49.0	49.3	51.6	49.66
Alamitos Generating Station	101.8	126.7	126.0	254.6*	270	50.94
Redondo Beach Generating Station	72.4	80.2	60.3	122.5*	146.3	0
Mandalay Generating Station	0	0	0	0	0	0
Ormond Beach Generating Station	146.9	227.5	250.6	180.2	180.5	54.16
Huntington Beach Generating Station	113.4	82.1	68.3	66**	71.6	31.25

	Average Annual Flow Rate (MGD)					
Power Plant Name	2019	2020	2021	2022	2023	2024
South Bay Power Plant	0	0	0	0	0	0
Encina Power Station	262.1	0	0	0	0	0
San Onofre Nuclear Generating Station	0	0	0	0	0	0
Total	3,545	3,814	3,572.6	3706.8	3,755.8	3,150.40

Source: U.S. EPA Flow Data, (Intergraded Compliance Information System [ICIS] Database). Last updated November 2025.

*The methodology to calculate total averages for Alamitos, Haynes, and Redondo Beach generating stations was adjusted for 2022 to reflect average annual flow rate more accurately by adding total monthly volumes from individual discharge points, rather than averaging across individual discharge points.

**Huntington Beach Generating Station's average annual flow rate was improperly entered as 60 million gallons per day (MGD) in 2022. The correct amount is 66 MGD and is reflected in the table.