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Joint Agency Reliability Planning Assessment

SB 846 Fourth Quarterly Report 2025

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ABSTRACT

The Joint Agency Reliability Planning Assessment addresses requirements for electric system reliability reporting in Senate Bill 846 (Dodd, Chapter 239, Statutes of 2022). This report provides the 2025 fourth quarterly review of the electricity supply forecast, and risks to reliability in the California Independent System Operator territory and includes an updated analysis for summer 2025.

Keywords: Reliability, Reliability Planning Assessment, Diablo Canyon, SB 846, California ISO, CEC, CPUC, California, electricity, supply and demand, extreme weather, electricity system planning, stack analysis, summer reliability, resource procurement

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EXECUTIVE SUMMARY

Senate Bill 846 (Dodd, Chapter 239, Statutes of 2022) mandated the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) to develop and provide to the Legislature quarterly joint agency reliability planning assessments beginning on or before December 15, 2022.

This assessment is the fourth quarterly report of 2025 and provides an update on electric demand and supply for summer 2025 for the California Independent System Operator (ISO) balancing area, as well as an assessment of electric system reliability under different risk scenarios. The analysis completed in this report is based on data that was available through August 1, 2025. This report does not update the 5- and 10-year-forward projections of system reliability or provide any recommendations to the Legislature; that assessment is done annually and was published as part of the combined first and second (2025) quarterly report. The report is also required to provide information on the status of new resources and delays or barriers to their availability to support reliability.

Projected system conditions for the summer have improved in the fourth quarter reliability assessment, driven by a significant increase in new resources expected to come online before the end of September. The latest stack analysis, which continues to focus on September, shows higher surplus capacity across all planning scenarios. Under average conditions, the surplus is projected to reach over 7,300 megawatts (MW). Even in extreme heat scenarios, the system maintains surpluses of over 4,700 MW for a 2020 heat equivalent event and over 3,100 MW for a 2022 heat equivalent event. A 2020 equivalent heat event represents weather conditions comparable to those experienced in August 2020 and is modeled as a stress scenario by applying a 22.5 percent planning reserve margin to the system. A 2022 equivalent heat event represents weather conditions comparable to those experienced in September 2022 and is modeled as a stress scenario by applying a 26 percent planning reserve margin to the system.

Despite the forecasted surplus, certain risks to grid reliability remain. Wildfires can damage transmission assets, potentially reducing electricity supply by up to 4,000 MW, as seen in past incidents. Additionally, the combination of coincident fire and extreme heat events could create a need for contingency resources to help maintain system reliability.

CHAPTER 1:
Fourth Quarterly Report

Introduction

This report provides an update to reliability-related activities and developments since the Third Quarterly *Joint Agency Reliability Planning Assessment* was written.[1] The assessment is required to include estimates of supply and demand for the next 10 years under different risk scenarios, information on existing and new resources and delays, and a description of barriers to timely deployment of resources, as mandated by Senate Bill 846 (Dodd, Chapter 239, Statutes of 2022).

Supply Forecast

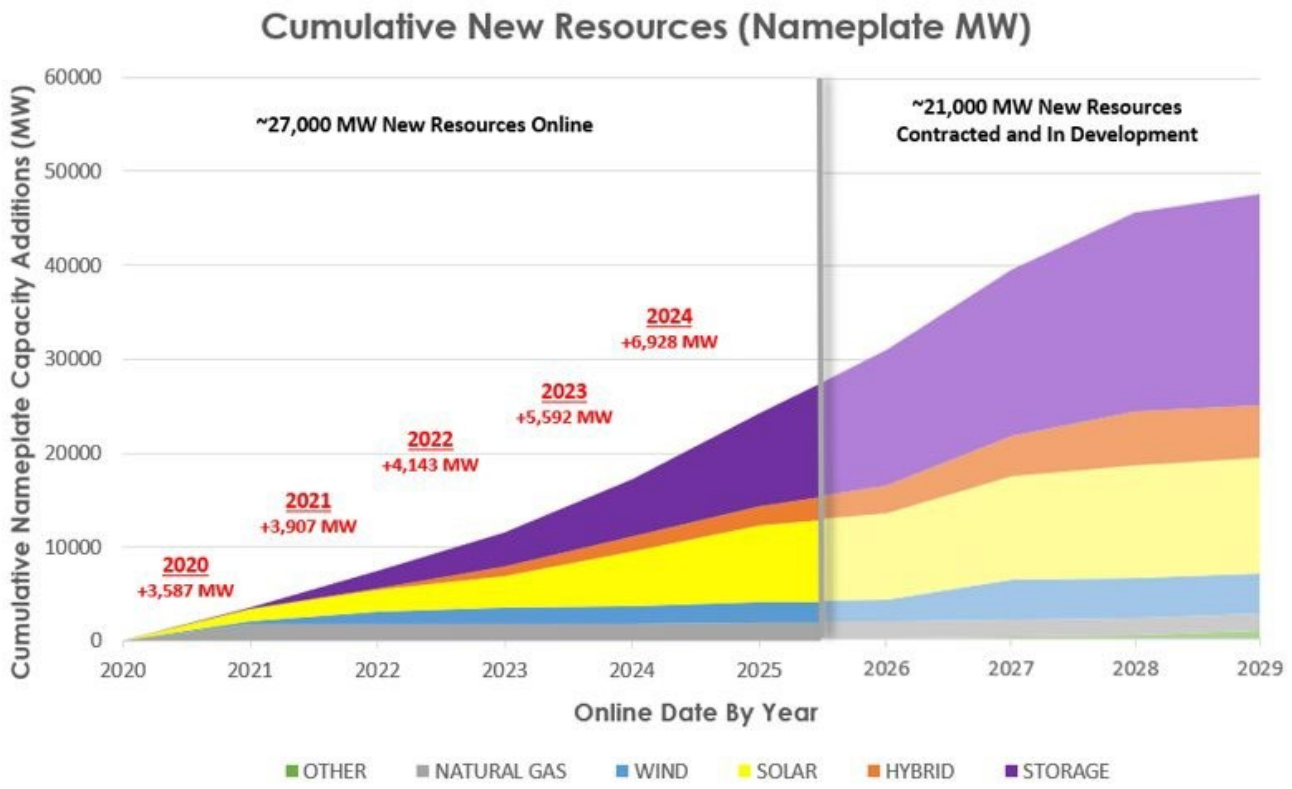
New Megawatts Online

Throughout the California ISO balancing authority, 27,000 MW of new nameplate capacity have come online from January 2020 to July 25, 2025. As shown in Figure 1, California continues to experience rapid growth in renewable resources, particularly solar photovoltaics and energy storage. In 2024 alone, roughly 7,000 MW of new nameplate capacity were added to the electric grid. This growth took place despite challenges outlined in previous reports including permitting, construction, and the interconnection processes. Increased transmission development, approved by the California ISO, should increase the amount of both in-state and out-of-state project development in the coming years.

Figure 1 below shows cumulative new capacity additions within the California ISO service territory from January 2020 to July 2025 as well as expected new resource additions based on current load-serving entity (LSE) contracts through 2028.

1 Saephan, Xieng (CEC) and Brendan Burns (CPUC). August 2025. *Joint Agency Reliability Planning Assessment SB 846 Third Quarterly Report*. California Energy Commission. Publication Number: CEC-200-2025-014. https://www.energy.ca.gov/publications/2025/joint-agency-reliability-planning-assessment-sb-846-third-quarterly-report-2025

Figure 1: Cumulative New Nameplate Megawatts of New Resources, 2020 to 2028



Source: CPUC, July 2025

Compliance with CPUC's Procurement Orders

In July 2025, CPUC staff released the Summary of Compliance with Integrated Resource Planning (IRP) Order D.19-11-016 and Mid-Term Reliability (MTR) (D.21-06-035) Procurement after analyzing the LSEs December 2024 compliance filings.[2] All of the data released in the CPUC staff analysis shows claimed procurement by LSEs towards IRP procurement orders. CPUC Staff review of the December 2024 filing indicates LSEs subject to MTR and Supplemental MTR (SMTR) procurement obligations have largely met their obligations for MTR Tranches 1 and 2 (corresponding to years 2023 and 2024).

High levels of compliance were achieved despite interconnection challenges and a constrained generation market, in part due to the large amount of new resources that have come online in the past few years, and also due to the regulatory flexibility offered to LSEs to use bridge resources (largely imports) in the event of project delay.[3]

2 California Public Utilities Commission. Summary of Compliance with Integrated Resource Planning (IRP) Order D.19-11-016 and Mid Term Reliability (MTR) D.21-06-035 Procurement, December 2023 Data Filings. Rulemaking 20-05-003. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/irp12123compliancereport.pdf.

3 D.21-06-035 (MTR) allowed the use of a short-term, "bridge" contract to be used to ensure compliance in the event of a specific delayed resource. D.23-02-040 stated that bridge contracts cannot be longer than three years. D.24-09-006 allowed bridge contracts that meet certain requirements to count towards the Diablo Canyon Replacement category of the MTR Decision.

For 2023, LSEs procured and brought online 99 percent of their cumulative 2,000 MW Net Qualifying Capacity (NQC) obligation, and for 2024, they procured and brought online about 93 percent of their cumulative 8,000 MW NQC obligation. Much of the contracted capacity submitted for MTR and SMTR compliance was for battery storage, solar, or hybrid resources. More comprehensive information about compliance with IRP procurement orders can be found in the CPUC Summary of Compliance with IRP Order D.19-11-016 and MTR D.21-06-035 Procurement.[4]

Estimates of Planned Resources

Tables 1 through 3 estimate expected new capacity currently under contract to CPUC-jurisdictional LSEs through 2028. The tables include resources being developed for compliance with IRP procurement orders as well as procurement for LSE compliance with other regulatory compliance obligations, including Resource Adequacy, Renewables Portfolio Standard and procurement the CPUC approved in the Emergency Reliability proceeding. All totals provided below represent the cumulative LSE-reported expected September NQC under contract to CPUC-jurisdictional LSEs.[5]

LSE procurement activity is ongoing and evolving regularly to meet LSE procurement portfolio needs. Shown in Table 1 through Table 3 are estimated resources by Transmission Access Charge (TAC) area, by LSE, and by Technology Type. The tables do not include all known resources in development in California, nor in all of the California ISO's footprint, and they represent only resources known to be under contract to CPUC-jurisdictional LSEs between 2025 and 2028, as of July 2025.[6] The tables show new supply resources that are expected to come online each quarter from now until 2028.[7] In Table 1 through Table 3, the new supply resources are measured in NQC, a measure of how much capacity system planners can rely upon the resources to provide to the grid during typical September conditions when peak loads are high and renewable generation is low. Figure 1 above shows ~21,000 MW of Nameplate new resources will come online in the next few years, and the tables below show that those same resources, using NQC accounting, will be over ~15,000 MW of NQC.

4 See CPUC IRP Procurement Compliance and Tracking information, available at: https://www.cpuc.ca.gov/irp_procurement.

5 Developers often aim to bring projects online in advance of contractual obligations. The data underlying the expected projects can be challenging to track. A new resource can have several expected on-line date changes, multiple off-takers, several on-line dates for different tranches of a project, multiple technologies in various configurations, changes to project sizing, changes to project naming, and multiple California ISO resource identification numbers once they come online.

6 These totals are subject to change as the CPUC receives new data from LSEs, conducts field calls with developers and investor-owned utilities' (IOU's) interconnection departments, and continues to evaluate the data.

7 Each figure in Tables 1-6 is rounded up to the nearest MW; consequently, the values in the "Total" rows may diverge slightly from the sum of the subtotal values directly above each of them, respectively.

Procurement by Transmission Access Charge (TAC) Area

Table 1: Estimated September NQC (MW) by TAC Area 2025 through 2028

TAC Area	2025 Q3-Q4	2026 Q1-Q2	2026 Q3-Q4	2027 Q1-Q2	2027 Q3-Q4	2028 Q1-Q2	2028 Q3-Q4
East Central	1,092	2,033	3,106	4,838	4,857	5,955	5,955
North	868	1,239	1,600	2,693	3,640	3,747	3,779
South	398	862	935	1,058	1,132	1,141	1,141
Other	570	1,443	2,365	2,809	4,031	4,518	4,518
Total	**2,928**	**5,578**	**8,007**	**11,399**	**13,659**	**15,361**	**15,393**

Source: CPUC Staff Aggregation of July 2025 LSEs' Procurement Status Reports

Procurement by LSE Type

Table 2: Estimated September NQC (MW) by LSE Type 2025 through 2028

LSE Type	2025 Q3-Q4	2026 Q1-Q2	2026 Q3-Q4	2027 Q1-Q2	2027 Q3-Q4	2028 Q1-Q2	2028 Q3-Q4
IOU[7]	2,128	3,094	4,505	5,580	6,798	7,759	7,759
Non-IOU	799	2,484	3,501	5,818	6,860	7,602	7,634
Total	**2,928**	**5,578**	**8,007**	**11,399**	**13,659**	**15,361**	**15,393**

Source: CPUC Staff Aggregation of July 2025 LSEs' Procurement Status Reports

Procurement by Resource Type

Table 3: Estimated September NQC (MW) by Resource Type 2025 through 2028

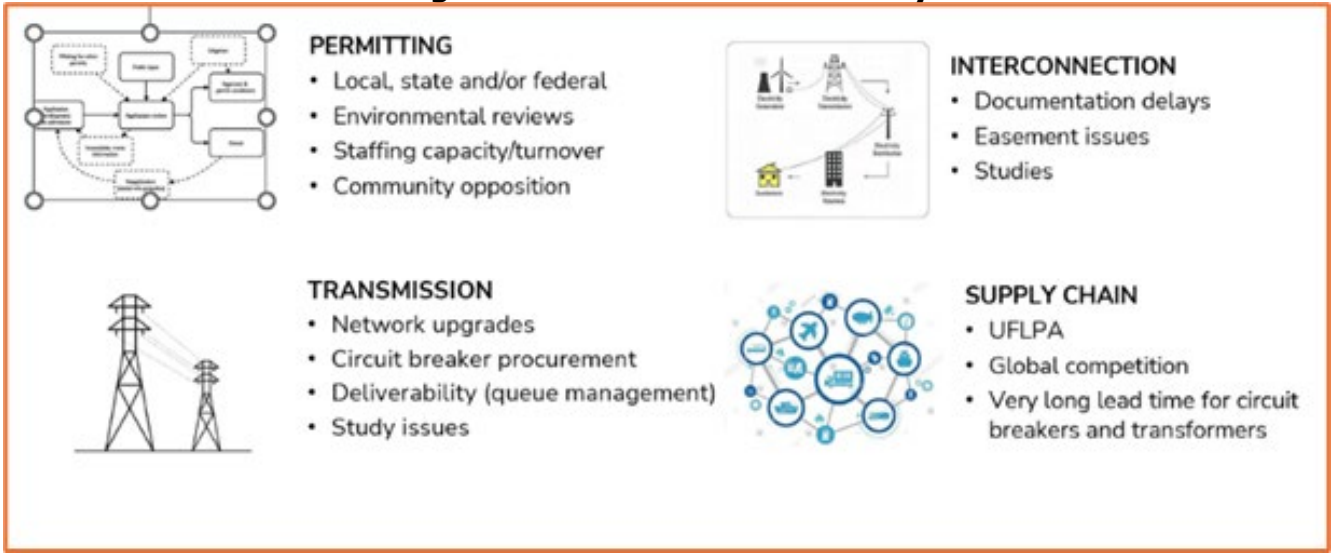
Resource Type	2025 Q3-Q4	2026 Q1-Q2	2026 Q3-Q4	2027 Q1-Q2	2027 Q3-Q4	2028 Q1-Q2	2028 Q3-Q4
Solar	428	447	893	1,048	1,798	1,798	1,798
Battery	2,105	3,707	4,929	7,237	8,572	9,753	9,753
Paired / Hybrid	368	1,142	1,468	2,265	2,400	2,433	2,433
Wind	16	252	595	595	595	600	600
Geo-thermal	-	20	112	243	283	768	800
Biomass / Biogas	10	10	10	10	10	10	10
Total	**2,928**	**5,578**	**8,007**	**11,399**	**13,659**	**15,361**	**15,393**

Source: CPUC Staff Aggregation of July 2025 LSEs' Procurement Status Reports

Tracking Energy Project Deployment

The Tracking Energy Development (TED) Task Force continues to gather information from developers and governmental entities to understand issues and build on the current work progress to accelerate energy project deployment. Clean energy project deployment faces many of the same challenges previously reported including supply chain shortages for critical equipment, interconnection delays, transmission capacity, and permitting and siting approval delays. Figure 2 lists the main challenges facing developers, as reported by developers.

Figure 2: Main Reasons for Delays



Source: GO-Biz

As of August 1, 2025, the TED Task Force is tracking about 177 projects that are expected to come online over the next several years. Of the total projects:

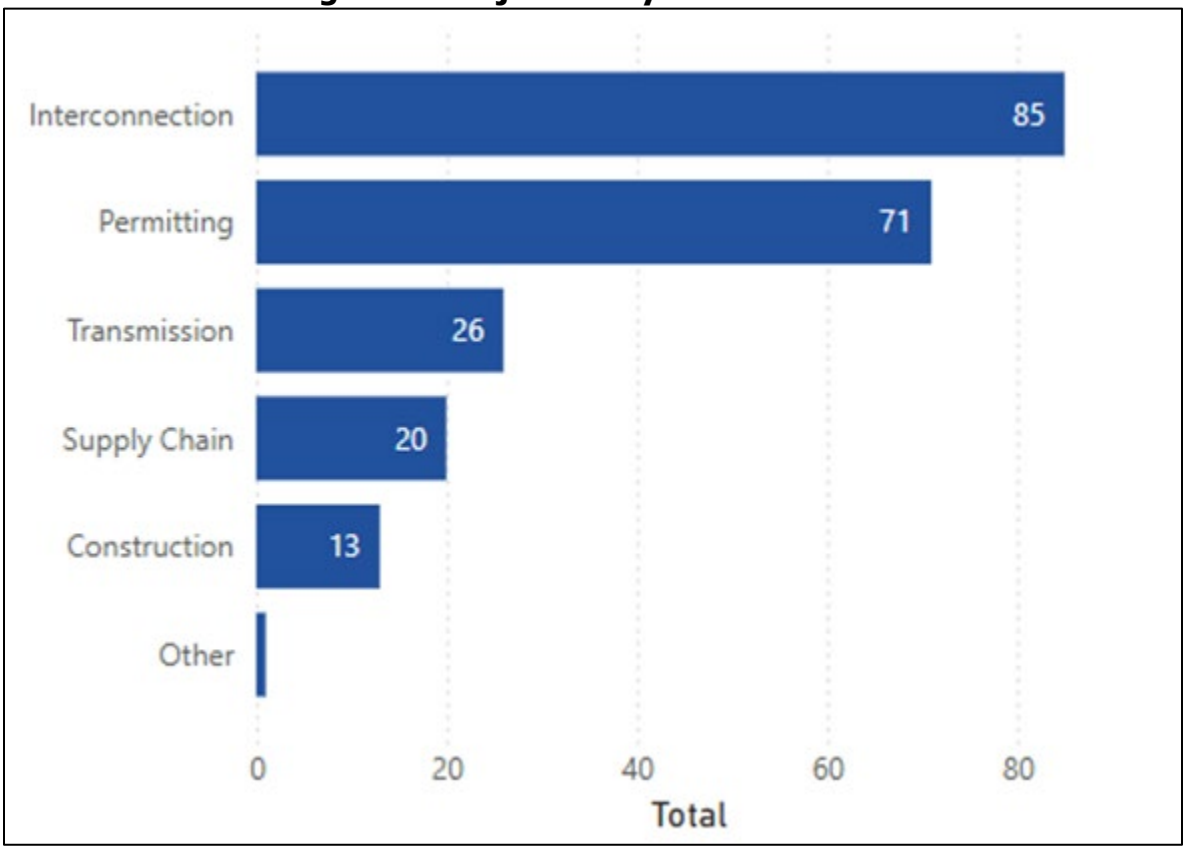
- 38 projects are currently on track to meet its commercial operation date (COD)[8];
- 47 projects have encountered issues that *may* delay reaching its COD; and
- 92 projects have faced issues that resulted in an extension of the COD, with the average delay time of about 22 months from the original COD.

A large-scale project takes years from the start of development to reaching COD and may encounter more than one issue that could delay their project reaching COD. Additionally, some of the issues are interconnected. For example, the network upgrade needed for transmission is delayed by procurement of critical equipment such as a circuit breaker.

For the 139 projects that may and already have experienced delays, Figure 3 shows the number of times each reason was cited by developers as contributing to its project being delayed from the developers' initial estimated COD.

8 Project is complete and commercially operating on the market.

Figure 3: Project Delay Reasons Cited



Source: GO-Biz

Each project delay category includes different underlying causes reported by developers:

- Interconnection: this process is technically complex and involves the participating transmission owner (publicly owned utility or investor-owned utility) and the grid operator. The most commonly cited drivers of interconnection delays involve preparing, submitting, reviewing, and correcting required documentation. Developers also cited needing transmission upgrades to be completed before they can interconnect and additional study time required to amend interconnection studies due to modification of project scope.
- Permitting: common causes of permitting delays cited include submission and review of environmental permits and challenges complying with requirements of local jurisdictions and obtaining permits.
- Other causes cited include supply chain delays in obtaining transmission equipment such as circuit breakers.

Federal Actions Impacting Clean Energy Project Deployment

Federal actions taken to hinder deployment of clean energy projects, in particular for solar and wind projects, is an emerging issue. The Inflation Reduction Act of 2022 (IRA) provides long-term incentives for large scale clean energy projects, which help to reduce renewable energy costs, driving innovation and investment. In response to federal executive orders, the Department of Interior (DOI) has issued orders that further limit utilization of the federal tax credits made available under IRA.

With the passage of HR 1 – the One Big Beautiful Bill Act – federal production and investment tax credits are no longer available for solar and wind projects after December 31, 2027. Specifically, solar and wind projects must be in construction by July 4, 2026, or placed in service by December 31, 2027, to claim these tax credits. The tax credits help to drive investment, keep electricity prices affordable, spur innovation and create jobs. Elimination of these tax credits negatively impacts hundreds of projects under development in California.

Additionally, the DOI issued a memo[9] requiring all actions related to solar and wind projects to go through the Secretary's office for review, including environmental reviews, right-of-way approvals, leases and other actions, increasing the standard review timelines for these projects. The memo lists 69 categories of actions now subject to this additional review and approval process, thereby slowing the standard review timelines and agency workflows for solar and wind projects. Additionally, the Bureau of Land Management (BLM) is expected to utilize a new formula for calculating rent for federal BLM land, namely a 3.9% gross revenues tax on all new wind and solar leases in BLM areas by recission of the May 2024 promulgated regulations for "Rights-of-Way, Leasing, and Operations for Renewable Energy."

In response to federal actions limiting renewable energy deployment, Governor Newsom issued Executive Order N-33-25 in late August to help projects capture the expiring federal tax credits. The EO directs relevant state agencies to assess actions both to capture expiring clean energy tax credits and to further expedite clean energy deployment. The EO also directs the Energy Working Group of the Infrastructure Strike Team to provide a summary of actions taken and future actions to support clean energy deployment. The TED Task Force has taken steps to identify impacted projects and potential actions to assist projects through increased outreach to developers and other stakeholders.

Battery Energy Storage System (BESS)

Large-scale BESS projects continue to be a topic of concern to local jurisdictions due to fire safety risks, even as these projects become more critical to helping California maintain grid stability. The TED Task Force has engaged with industry associations to increase availability of educational and safety resources as well as deepening engagement with local governments, including those seeking to update and/or create clean energy ordinances for their jurisdiction.

The State Battery Storage Collaborative, convened by Governor Newsom in 2024, is an inter-agency working group consisting of the California Air Resources Board, CEC, CPUC, California Department of Forestry and Fire Protection (CAL FIRE) – Office of the State Fire Marshal (OSFM), the Governor's Office of Emergency Services, and the Governor's Office of Business and Economic Development (GO-Biz). To further enhance battery safety in California, the participants in the collaborative have taken several important steps:

- CAL FIRE – OSFM adopted a suite of updated fire safety codes for battery energy storage systems (BESS). Changes to Chapters 3, 12, and 80 of the California Fire Code are intended to ensure battery facilities are constructed to the latest fire safety standards including the 2023 edition of the National Fire Protection Association (NFPA)

9 U.S. Department of the Interior. Departmental Review Procedures for Decisions, Actions, Consultations, and Other Undertakings Related to Wind and Solar Energy Facilities. https://www.doi.gov/media/document/departmental-review-procedures-decisions-actions-consultations-and-other.

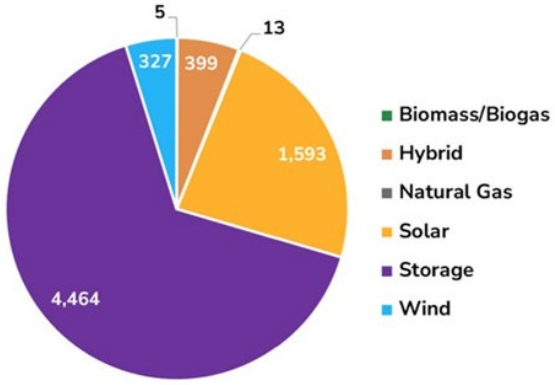
855 standard. These updated regulations were adopted on March 7, 2025, and will take effect on January 1, 2026. The OSFM also intends to propose early adoption of the drafted provisions of the 2026 edition of NFPA 855 in the upcoming intervening code cycle, which will be effective on July 1, 2027.

- CAL FIRE hosted a symposium on battery safety for local fire departments and officials on July 24, 2025, in Sacramento. The event drew more than 1,200 in-person and virtual participants to share valuable insights on improving emergency response, the latest research and technology, current codes and standards for battery storage, and updates on state initiatives to local fire departments and officials.
- CPUC approved new safety standards and enhanced oversight for grid-scale battery energy storage systems. Under General Order 167-C, the CPUC now has oversight over the maintenance and operations of battery energy storage systems and will also verify that system owners have filed emergency response plans with the local fire department. The CPUC has begun in-person inspections of battery energy facilities.
- CPUC completed an initial survey of the state's grid-scale battery fleet. Survey responses, as reported by battery system operators, showed that a majority of the state's large, utility-scale battery fleet is housed outdoors in dispersed containers, uses lithium iron phosphate chemistry, and reports compliance with applicable codes and standards (NFPA 855).
- As a condition of its approval of the Darden Clean Energy Project, which, at the time of approval, was the largest planned grid-scale battery storage project in the world, the CEC is requiring robust safety measures. This includes adherence to NFPA 855 (2023), thermal infrared cameras, real-time monitoring of air and water quality, and ongoing collaboration and training with first responders.
- The collaborative will continue to identify new opportunities to improve battery safety.

Clean Energy Projects Deployed

As of July 25, 2025, 52 projects totaling 2,862 MW came online so far in 2025. Figure 4 shows the new MW online by resource type and Figure 5 shows a map, as well as listing, of the top 10 counties by MW added to the grid and where these projects were deployed. Additional information on energy projects online and operating can be found on the state's infrastructure website at build.ca.gov.

Figure 4: Online MW by Resource Type



Source: GO-Biz
*As of July 25, 2025

was already anticipated, approximately 2,200 MW of new battery nameplate capacity is expected to be installed by the end of summer.[10]

This increase is due in part to more resources than initially anticipated successfully synchronizing with the grid. In the 2025 Third Quarterly *Joint Agency Reliability Planning Assessment* many of these resources were categorized as contingent and excluded from the stack analysis due to uncertainty around their operational timelines. However, a larger portion of these projects advanced in their project timelines, making them eligible for inclusion in this updated forecast.

Table 4: Comparison of Summer 2025 Resource Stack Inputs and Results for September – Hour 18

	2025 3rd Quarter Report (MW)	2025 4th Quarter Report (MW)	Change Since Last Update (MW)
Supply			
Existing Resources*	49,153	49,122	▼**31**
Expected New Resources[11]	432	2,307	▲**1,875**
Solar	1,769	1,769	**0**
Wind	1,310	1,307	▼**3**
RA Imports	5,500	5,500	**0**
Demand Response	1,033	1,033	**0**
Total (MW)	**59,197**	**61,038**	▲**1,841**
Demand			
2025 Sept. Peak Demand	**46,152**	**46,094[12]**	▼**58**
Surplus/Shortfalls			
Planning Standard (average conditions)	5,512	7,319	▲**1,807**

10 Final data on projects installed by the end of September will be available in the next quarterly report.

11 New resources: Refers to the sum of expected new generation capacity projected to come online, with adjustments made based on their hourly generation profiles, where applicable (e.g., for solar, wind, or batteries).

12 Updated forecast reflects a corrected demand value; this change does not affect the reported surplus amounts. Updated demand forecast can be found here: https://efiling.energy.ca.gov/GetDocument.aspx?tn=262289.

	2025 3rd Quarter Report (MW)	2025 4th Quarter Report (MW)	Change Since Last Update (MW)
2020 Equivalent Event	2,980	4,794	▲**1,817**
2022 Equivalent Event	1,368	3,187	▲**1,819**

*Existing resources take into account limitations at the point of interconnection and other constraints. Therefore, there is not always a 1:1 conversion between forecasted nameplate to existing resource MW.

Source: CEC staff with California ISO data

The stack analysis in this report shows surpluses of over 7,300 MW under average conditions, more than 4,700 MW for a 2020 equivalent event, and over 3,100 MW for a 2022 equivalent event. This reflects an increase of over 1,800 MW in the planning standard surplus compared to the previous quarterly report. The improvement is primarily driven by new resources expected to be installed before the end of summer.

These projections do not account for the potential risk posed by wildfires, which could lead to the loss of up to 4,000 MW, primarily through impacts to major transmission lines. If such transmission losses occur, the system is expected to remain reliable under planning standard conditions, and even during a 2020 equivalent event. However, if a wildfire affecting major transmission lines coincides with an extreme heat event, such as the one experienced in 2022, the analysis indicates that up to 800 MW of contingency resources may be needed to maintain reliability under those extreme conditions.

Table 5: Impact of Wildfires on Reliability

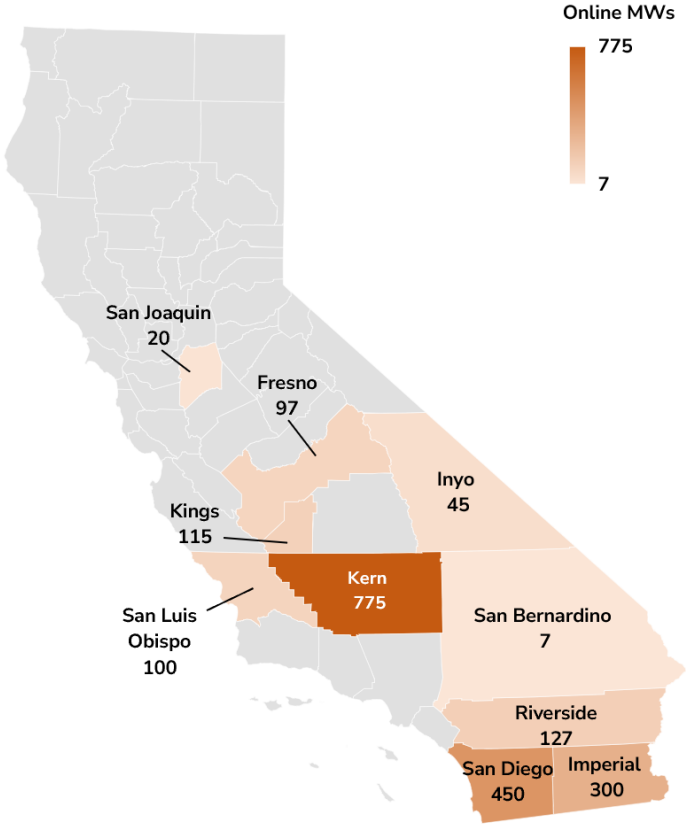
System conditions	Surplus/Shortfalls
Planning Standard	**3,319 MW**
2020 Equivalent Event	**794 MW**
2022 Equivalent Event	**-813 MW**

Source: CEC staff

Contingency Resources

The agencies and the California ISO are continuing to track contingency resources, which are resources outside of the resources considered in the stack analysis and which provide support during an extreme event. Contingency resources, identified in Table 6 are expected to provide between 4,100 MW and 4,600 MW during extreme events and may be called upon to cover contingency needs identified in real time grid operations.

Figure 5: 2025 Top 10 Counties by MW Deployed



County	Online MWs	Online Projects
Kern	775	16
San Diego	450	2
Imperial	300	2
Riverside	127	5
Kings	115	6
San Luis Obispo	100	1
Fresno	97	1
Inyo	45	2
San Joaquin	20	1
San Bernardino	7	5

**Data as of July 25th, 2025*

Source: GO-Biz

Reliability Assessment

The reliability assessment approach used for this report is consistent with the Summer Resource Stack Analysis for 2025 published by the CEC in the 2025 Combined First and Second, and Third Quarterly *Joint Agency Reliability Planning Assessments*. The assessment compares an hourly projection of anticipated supply, against the projected hourly demand plus the reserve margin, for the peak day of each month (July through September). The 17 percent planning reserve margin (PRM) (current resource adequacy planning standard) represents average conditions, while 22.5 and 26 percent PRMs are comparable to elevated conditions experienced during the 2020 and 2022 heat events, respectively.

The summer resource stack analysis continues to conservatively identify the maximum hourly contingency need for summer 2025 under various PRM scenarios. There was no reliability-driven need for contingency resources in July or August 2025. As a result, this section focuses on September, which historically presents the greatest reliability challenges during the summer months.

California ISO Area: Updated Resource Stack Analysis Results for Summer 2025

As shown in Table 4, there has been a significant change to the stack analysis results since the 2025 Third Quarterly *Joint Agency Reliability Planning Assessment* was published. An additional 2,300 MW of new supply resources are now expected to come online before the end of September, with more than 2,000 MW attributed to battery storage. In total, on top of what

Table 6: Contingency Resources for Summer 2025

Type	Contingency Resource	Available MW July	Available MW August	Available MW September
SRR, SPAP [13]	DWR[14] Electricity Supply Strategic Reliability Reserve Program and State Power Augmentation Program	3,079	3,079	3,079
SRR	Demand Side Grid Support	612	657	710
SRR	Distributed Electricity Backup Assets (under development)	0	0	0
CPUC	Ratepayer Programs (Emergency Load Reduction Program, Smart Thermostats, etc.) *	128	121	122
CPUC	Imports Beyond Stack*	0	0	0
CPUC	Capacity at Co-gen or Gas Units Above Resource Adequacy*	599	599	599
Non-Program	Balancing Authority Emergency Transfers	300	300	300
Non-Program	Thermal Resources Beyond Limits: Gen Limits Needing 202c	25	25	25
	Total	4,775	4,711	4,836

Source: CEC staff with California ISO, Department of Water Resources, and CPUC data

13 Strategic Reliability Reserve and State Power Augmentation Program

14 Department of Water Resources

APPENDIX A:
Acronyms and Abbreviations

BESS – Battery Electric System Storage

California ISO – California Independent System Operator

CEC – California Energy Commission

COD – Commercial Operation Date

CPUC – California Public Utilities Commission

DAWG – Demand Analysis Working Group

DEBA - Distributed Electricity Backup Assets

DSGS – Demand Side Grid Support

DWR – Department of Water Resources

ELCC – Effective load carrying capabilities

GO-Biz – Governor's Office of Business and Economic Development

IEPR – Integrated Energy Policy Report

IOU – Investor-owned Utility

IRP – Integrated Resource Planning

LSE – Load-serving entity

MTR – Mid-term reliability

MW – Megawatts

NFPA – National Fire Protection Association

NQC – Net qualifying capacity

PG&E – Pacific Gas and Electric

PRM – Planning Reserve Margin

PV – Photovoltaics

SB – Senate Bill

SRR – Strategic Reliability Reserve

TAC – Transmission Access Charge

TED – Tracking Energy Development

TPP – Transmission Planning Process

APPENDIX B:
Glossary

For additional information on commonly used energy terminology, see the following industry glossary links:

- California Energy Commission Energy Glossary, is available at https://www.energy.ca.gov/resources/energy-glossary
- California Independent System Operator Glossary of Terms and Acronyms, is available at http://www.caiso.com/Pages/glossary.aspx
- California Public Utilities Commission Glossary of Acronyms and Other Frequently Used Terms, is available at https://www.cpuc.ca.gov/glossary/
- Federal Energy Regulatory Commission Glossary, is available at https://www.ferc.gov/about/what-ferc/about/glossary
- North American Electric Reliability Corporation Glossary of Terms Used in NERC Reliability Standards, is available at https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf
- US Energy Information Administration Glossary, is available at https://www.eia.gov/tools/glossary/

Integrated Energy Policy Report (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission to prepare a biennial integrated energy report. The report, which is crafted in collaboration with a range of stakeholders, contains an integrated assessment of major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors. The report provides policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies, enhance the state's economy, and protect public health and safety. For more information, see the CEC Integrated Energy Policy Report Web page.

Investor-owned utility (IOU)

Investor-owned utilities (IOUs) provide transmission and distribution services to all electric customers in their service territory. The utilities also provide generation service for "bundled" customers, while "unbundled" customers receive electric generation service from an alternate provider, such as a community choice aggregator. California has three large IOUs offering electricity service: Pacific Gas and Electric, Southern California Edison, and San Diego Gas & Electric.

Load-serving entity (LSE)

A load-serving entity is defined by the California ISO as an entity that has been "granted authority by state or local law, regulation or franchise to serve [their] own load directly through wholesale energy purchases."

Net qualifying capacity (NQC)

The amount of capacity that can be counted towards meeting resource adequacy requirements in the CPUC's resource adequacy program. It is a combination of the CPUC's qualifying capacity counting rules and the methodologies for implementing them for each resource type, and the deliverability of power from that resource to the California ISO system. CPUC IRP procurement orders (D.19-11-016, D.21-06-035, D.23-02-040) also require counting of resources for compliance using the associated NQCs, which can be different to those used in the RA program, depending on the resource type and order.

Power plant

A centralized facility that generates and stores electricity to meet the energy demands of a specific area or grid. It includes generating units and storage resources to produce and supply electrical energy effectively.

Transmission Access Charge (TAC) Area

A designated geographical region where a single Participating Transmission Operator - an entity that manages transmission infrastructure - operates. Major examples with their own TAC areas include but are not limited to: Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric.