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Joint Agency Reliability Planning Assessment

SB 846 Third Quarterly Report 2025

August 2025 | CEC-200-2025-014

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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 third 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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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

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. These assessments include updates on electric system demand and supply for the next 5- and 10-year periods, as well as an assessment of electric system reliability under different risk scenarios. The report is also required to provide information on the status of new resources and delays or barriers to their availability to support reliability.

This assessment is the third 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. 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 latest stack analysis, which primarily focuses on September — the month with the highest risk of shortfalls — continues to show surplus capacity under average conditions. The surplus is expected to reach 5,400 megawatts (MW). Even in scenarios similar to extreme heat events from 2020 and 2022, the system maintains a surplus of 2,900 MW for a 2020 equivalent event and 1,300 MW for a 2022 equivalent event.

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:
Third Quarterly Report

Introduction

This report provides an update to reliability-related activities and developments since the Combined First and Second Quarterly *Joint Agency Reliability Planning Assessment* was written.[1] The report provides updates for topics required by Senate Bill 846 (Dodd, Chapter 239, Statutes of 2022).

Supply Forecast

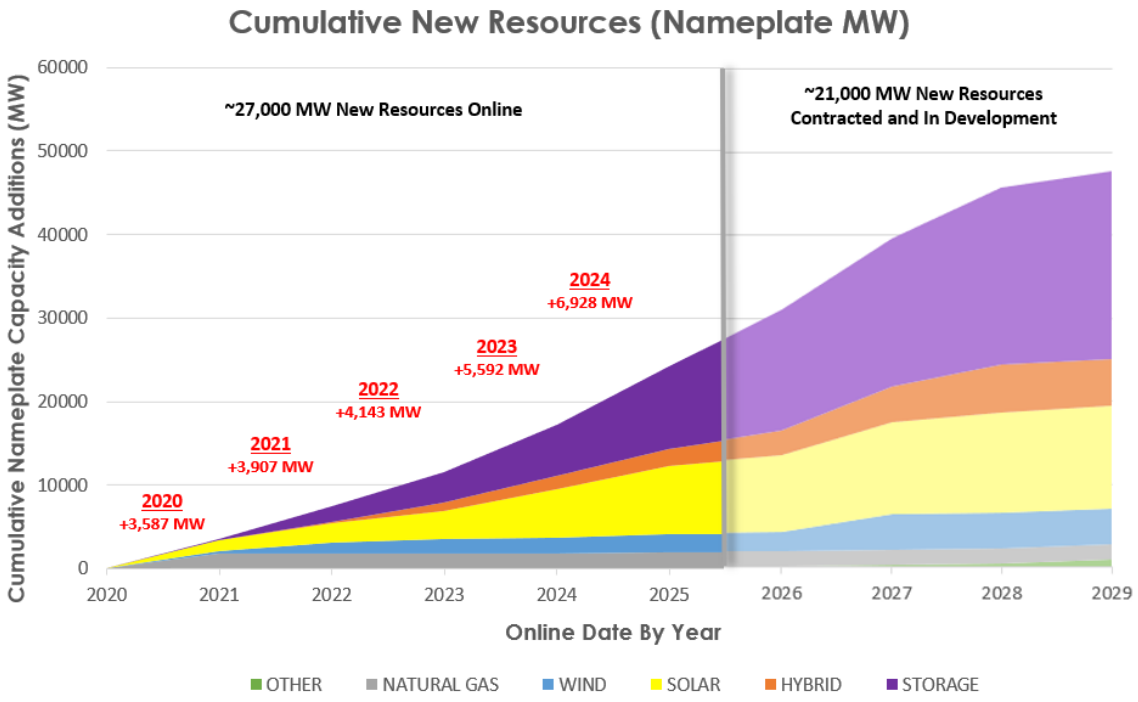
New Megawatts Online

Throughout the California ISO balancing authority, more than 26,000 MW of new nameplate capacity have come online from January 2020 to June 2, 2025. As shown in Figure 1, California continues to experience rapid growth in clean energy resources, particularly solar photovoltaics (PV) and energy storage. In 2024 alone, about 7,000 MW of new nameplate capacity were added to the electric grid. The new capacity represented the largest single-year increase in clean energy capacity added to the grid in state history, breaking the previous records set in both 2022 and 2023. 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 June 2025 as well as expected new resource additions based on current load-serving entity (LSE) contracts through 2028.

1 Joint Agency Reliability Planning Assessment: Covering the Requirements of SB 846 (Combined First and Second Quarterly Report for 2025) and SB 1020 (Annual Report), is available at (https://www.energy.ca.gov/publications/2025/joint-agency-reliability-planning-assessment-covering-requirements-sb-846).

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



Source: CPUC

Compliance with CPUC's Procurement Orders

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 using the LSEs December 2024 Data Filings.[2] All of the data released shows verified procurement by LSEs towards IRP procurement orders. CPUC staff review of the December 2024 filings 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 regulatory flexibility via use of bridging resources.

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

2 California Public Utilities Commission. California Public Utilities Commission (CPUC) Staff Review of Load-Serving Entities' (LSEs') Compliance with the Mid-Term Reliability (MTR, D.21-06-035) and Supplemental MTR (SMTR, D.23-02-040) Decisions, is available at (https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/compliance-status-reportmid-term-reliability-mtr-and-supplemental-mtr.pdf).

in the CPUC Summary of Compliance with IRP Order D.19-11-016 and MTR D.21-06-035 Procurement.[3]

Estimates of Planned Resources

This section updates the estimated capacity under contract to CPUC-jurisdictional LSEs through 2028. Table 1 through Table 3 include resources being developed for compliance with IRP procurement orders as well as procurement for LSE compliance with the Renewables Portfolio Standard and procurement the CPUC approved in the Emergency Reliability proceeding. All totals provided below represent the cumulative LSE-reported September NQC under contract to CPUC-jurisdictional LSEs.[4]

LSE procurement activity is ongoing to meet existing CPUC IRP procurement orders. Table 1 through Table 3 do not include all known resources in development in California, nor in all of the California ISO's footprint, and the figures represent only resources known to be under contract to CPUC-jurisdictional LSEs between 2025 and 2028, as of April 2025.[5] The following tables show new supply resources that are expected to come online each six-month period from now until 2028.[6] In Table 1 through Table 3, the new supply resources are measured in September NQC, a measure of a resource's maximum capacity eligible to be counted towards the CPUC's RA requirements adjusted to the deliverable capacity value.[7]s

Procurement by Transmission Access Charge (TAC) Area

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

TAC Area	2025 Q1-Q2	2025 Q3-Q4	2026 Q1-Q2	2026 Q3-Q4	2027 Q1-Q2	2027 Q3-Q4	2028 Q1-Q2	2028 Q3-Q4
East Central	524	1,196	2,315	3,138	4,640	4,640	5,463	5,463
North	364	1,088	1,673	2,068	3,042	3,921	4,028	4,028
South	234	547	987	1,094	1,169	1,243	1,293	1,293
Other	614	720	1,778	2,276	2,777	3,259	3,637	3,656
Total	**1,735**	**3,551**	**6,753**	**8,576**	**11,627**	**13,063**	**14,422**	**14,441**

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

4 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.

5 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.

6 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.

7 California Public Utilities Commission. *2022 Resource Adequacy Report*. May 2024. 45. Available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/resource-adequacy-homepage/2022-ra-report_05022024.pdf

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

Procurement by LSE Type

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

LSE Type	2025 Q1-Q2	2025 Q3-Q4	2026 Q1-Q2	2026 Q3-Q4	2027 Q1-Q2	2027 Q3-Q4	2028 Q1-Q2	2028 Q3-Q4
IOU[8]	1,268	2,624	4,103	4,864	6,013	6,463	7,199	7,199
Non-IOU	467	927	2,650	3,712	5,614	6,600	7,223	7,242
Total	**1,735**	**3,551**	**6,753**	**8,576**	**11,627**	**13,063**	**14,422**	**14,441**

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

Procurement by Resource Type

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

Resource Type	2025 Q1-Q2	2025 Q3-Q4	2026 Q1-Q2	2026 Q3-Q4	2027 Q1-Q2	2027 Q3-Q4	2028 Q1-Q2	2028 Q3-Q4
Solar	94	273	488	534	689	689	689	689
Battery	1,474	2,746	5,024	6,049	8,000	9,268	10,163	10,163
Paired / Hybrid	143	497	1,078	1,422	2,143	2,278	2,311	2,311
Wind	16	16	95	413	498	498	502	502
Geo-thermal	6	9	58	148	288	321	747	766
Biomass / Biogas	2	10	10	10	10	10	10	10
Total	**1,735**	**3,551**	**6,753**	**8,576**	**11,627**	**13,063**	**14,422**	**14,441**

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

Tracking Project Development

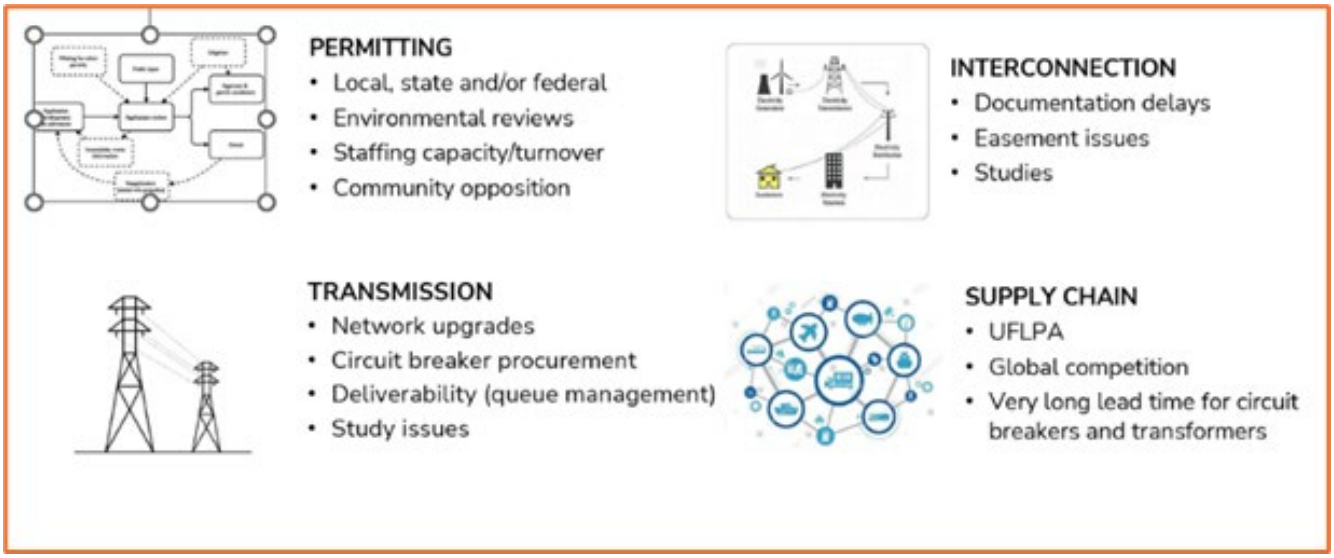
The Tracking Energy Development (TED) Task Force continues to gather information from developers, governmental entities, and stakeholders to understand issues and build on progress to accelerate clean energy project deployment.

Clean energy project deployment continues to face many of the same challenges previously reported including supply chain shortages for critical equipment, interconnection timelines,

8 Investor-owned utility.

transmission capacity, and permitting and siting approval delays. Figure 2 lists the most cited challenges facing developers, as reported by developers.

Figure 2: Main Challenges Cited for Project Delay



Source: GO-Biz

As of June 1, the TED Task Force is tracking about 148 projects that are expected to come online over the next several years. Of the total projects:

- 44 projects are on track to meet their commercial operation date (COD)[9];
- 35 projects have encountered issues that *may* delay reaching COD; and
- 69 projects have faced issues that resulted in an extension of the COD, with the average delay of about 22 months from the original COD.

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 and transition away from fossil fuels. Several local jurisdictions have passed a moratorium on BESS projects in their localities to allow adequate time to understand the issues and update zoning/land use ordinances for battery projects. The TED Task Force observed increased local opposition in the aftermath of a fire at the Moss Landing Energy Storage Facility in Monterey County earlier this year. Recognizing that battery technology is evolving, the TED Task Force has engaged with industry associations to increase availability of educational and safety resources and deepened engagement with local governments, including those seeking to update and/or create clean energy ordinances for their jurisdiction.

Governor Gavin Newsom convened the Battery Storage Collaborative, an inter-agency working group to review the battery storage landscape for opportunities to improve battery safety, including technology development and best practices for outreach and education, permitting and installation of battery projects, inspection and monitoring practices, and first responder

9 Project is complete and commercially operating on the market.

training and safety. The Collaborative brings together multiple state agencies and departments with regulatory and industry expertise, including the California Air Resources Board, CEC, CPUC, California Department of Forestry and Fire Protection – Office of the State Fire Marshal, the Governor's Office of Emergency Services, and the Governor's Office of Business and Economic Development (GO-Biz). Recent and upcoming activities include the following:

- **CPUC General Order 167-C** established new standards for the maintenance and operation of battery storage facilities, and increased oversight over the emergency response action plans for the facilities.[10]
- GO-Biz kicked off its **Clean Energy Permitting Initiative** to assess challenges and barriers faced by local jurisdictions for permitting large-scale energy projects, including BESS, and to develop a toolkit of resources for process improvements. The playbook and toolkit are expected to be completed by the fourth quarter of 2025.[11]
- California Department of Forestry and Fire Protection Office of State Fire Marshal will be hosting the **BESS Fire Safety Symposium** on July 24, 2025, in Sacramento to share valuable insights on improving emergency response, latest research and technology, understanding codes and standards, and updates on state initiatives to local fire departments and officials.[12]

Clean Energy Projects Deployed

New projects continue to come online and are providing power to millions of Californians. As of May 5, 2025, 24 projects totaling 1,688 MW came online.

Table 4: New MWs Online, Nameplate (By Year and Resource Type)

Technology Type	2020	2021	2022	2023	2024	2025	Total MW	# Projects
SOLAR	1,300	1,048	913	2,482	2,227	70	8,039	130
STORAGE	101	1,703	1,907	2,528	3,553	1,224	11,017	148
HYBRID (SOLAR + STORAGE)	0	26	890	354	503	218	1,991	26

10 California Public Utilities Commission. *CPUC Sets New Safety Standards and Enhances Oversight of Emergency Plans* is available at: https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-sets-new-safety-standards-and-enhances-oversight-of-emergency-plans.

11 Governor's Office of Business and Economic Development (GO-Biz). The *Renewable Energy Permitting Initiative* is described at: https://business.ca.gov/industries/climate-and-clean-energy/go-biz-renewable-energy-permitting-initiative/.

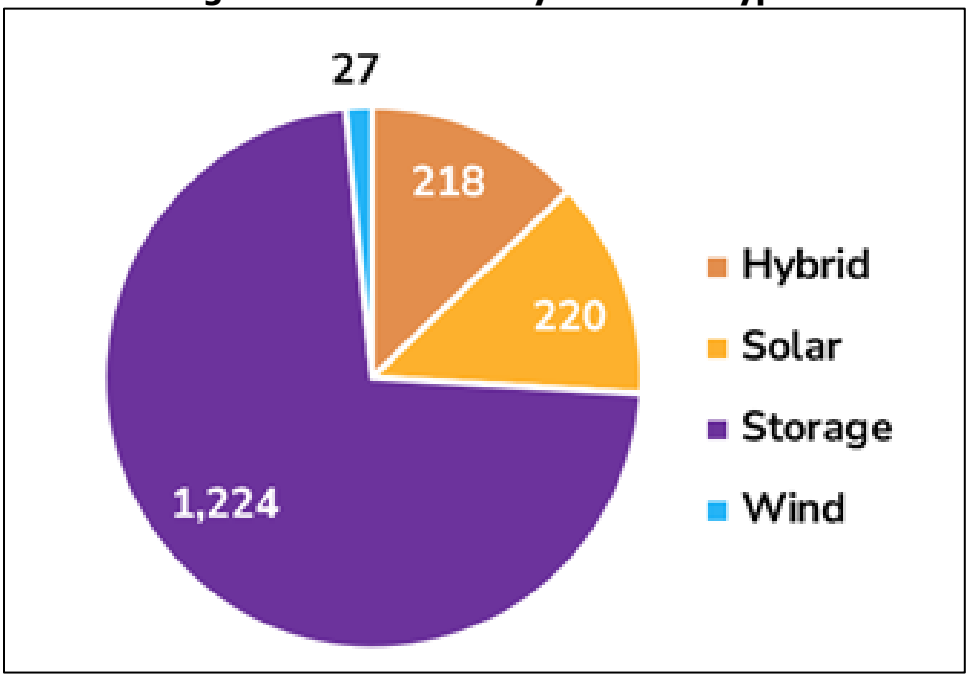
12 California Office of the State Fire Marshal (OSFM). *Battery Energy Storage Systems Code Development and Analysis* information is available at: https://osfm.fire.ca.gov/what-we-do/code-development-and-analysis/battery-energy-storage-systems.

Technology Type	2020	2021	2022	2023	2024	2025	Total MW	# Projects
WIND	16	304	367	171	260	27	1,145	23
GEOTHERMAL	0	0	0	0	41	0	41	1
HYDRO	26	0	0	0	0	0	26	4
BIOMASS	0	2	3	3	0.5	0	8	4
BIOGAS	1	0	2	3	0	0	6	3
Subtotal Total New SB 100 Resources, IN-CAISO	**1,444**	**3,083**	**4,082**	**5,542**	**6,584**	**1,539**	**22,272**	**339**
NATURAL GAS, incl. Alamitos & Huntington Beach	1,448	17	12	0	63	0	1,539	**17**
Total New Resources, IN-CAISO	**2,892**	**3,100**	**4,094**	**5,542**	**6,647**	**1,539**	**23,811**	**356**
New Imports, Pseudo-Tie or Dynamically Scheduled	695	807	49	50	282	150	2,033	**16**
Total New Resources, including Imports	**3,587**	**3,907**	**4,143**	**5,592**	**6,929**	**1,688**	**25,844**	**372**

Source: CPUC (data includes projects online as of May 6, 2025)

Figure 3 shows the new MW online by resource type. Figure 4 shows a map of where these projects were deployed as well as a list of the top 10 counties by MW added to the grid. Additional information on energy projects online and operating can be found on the state's infrastructure website at build.ca.gov.

Figure 3: Online MW by Resource Type



Source: GO-Biz
*As of May 5, 2025

Figure 4: 2024 Top 10 Counties by MW Deployed

County	Online MWs	Online Projects
San Diego	450	2
Kern	403	9
San Luis Obispo	100	1
Fresno	97	1
Inyo	45	2
Riverside	27	1
San Joaquin	20	1
Merced	6	2
Kings	3	1
Solano	3	1

Data through May 6th, 2025

Source: GO-Biz

Reliability Assessment

The reliability assessment approach used for this report is consistent with the Summer Resource Stack Analysis for 2025–2035 published by the CEC in the 2025 Combined First and Second Quarterly *Joint Agency Reliability Planning Assessment*. 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) (2025 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 is no projected need for contingency resources in July and August. As a result, this section focuses on September, which typically presents the greatest reliability challenges during the summer months.

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

Beyond resources available by the end of June, staff continues to track the progress of additional resources that may come online during the summer months. The additional contingent resources breakdown by type is shown in Table 5. It is highly unlikely that the majority of resources in Table 5 come online by the end of August because most of these resources have not yet synchronized with the grid and/or are in initiated testing. However, based on historical build rate averages, staff estimate that 20 percent of the total could still achieve commercial operations in July and August. Additional contingent resources are not part of the stack analysis due to high uncertainty on whether these resources can achieve commercial operations in the summer.

As shown in Table 6, there are no significant changes to the stack analysis results since the 2025 Combined First and Second Quarterly *Joint Agency Reliability Planning Assessment*. The analysis shows that new resources are coming online as expected and this leads to small changes in the forecasted surpluses in September.

Table 5: Additional Resources – July and August

Resource Type	Nameplate (MW)
Battery	1,870
Solar	960
Wind	370
Total	**3,200**

Source: CEC staff with California ISO data

Table 6: Comparison of Summer Assessment Results for September 2025 – Hour 18

	2025 1st and 2nd Quarter Report (MW)	2025 3rd Quarter Report (MW)	Change Since Last Update (MW)
Supply			
Demand Response	1,033	1,033	**–0**
Existing Resources*	48,032	49,153	**▲1,121**
New Batteries Nameplate**	1,722	426	**▼-1,296**
Wind	1,305	1,310	**▲5**
Solar	1,765	1,769	**▲4**
RA Imports	5,500	5,500	**–0**
Total (MW)	**59,357**	**59,191**	**▼-166**
Demand			
2025 Sept. Peak Demand	**46,152**[13]	**46,152**	**–0**
Surplus/Shortfalls			
Planning Standard (average conditions)	5,512	5,480	**▼-32**
2020 Equivalent Event	2,980	2,955	**▼-25**
2022 Equivalent Event	1,368	1,348	**▼-20**

***Existing resources are based on a combination NQC changes and modeled battery dispatch at hour 18. The battery dispatch can move energy and capacity to other hours – resulting in not using the entire battery capacity.**
****A negative change between reports typically means that the expected new batteries have achieved commercial operations and are now counted in the existing resources row. However, it's not always a 1:1 transfer between the two rows.**
Source: CEC staff with California ISO data

The stack analysis, in this report, shows surpluses of up to 5,400 MW under average conditions, 2,900 MW for a 2020 equivalent event, and 1,300 MW for a 2022 equivalent event. Existing resources increased by more than 1,100 MW since the last report, which is due to new resources achieving commercial operations. Subsequently, the amount of projected new batteries decreased by 1,300 MW as these batteries have achieved commercial operations.

13 2024 California Energy Demand Data. Note: There is an error in the demand forecast that does not significantly impact the results of the stack analysis in this report. The overall conclusions and forecasted conditions remain the same, despite the error. The data will be updated with the revised demand forecast in the next quarterly report.

These projections, however, do not account for the potential risk posed by wildfires, which could lead to the loss of up to 4,000 MW. With the increasing threat of extreme weather due to climate change, large wildfires, such as the Los Angeles fires earlier this year, remain a significant reliability concern. While tight system conditions are factored into this analysis, additional disruptions from wildfires could further impact system reliability. Table 7 shows the combined impact of potential wildfires and extreme heat conditions. The analysis shows that the California ISO could start to experience shortfalls if the state were to experience extreme heat conditions similar to the 2020 August heat event and coincident fires that force major transmission lines to go offline.

Table 7: Impact of Wildfires on Reliability

System conditions	Surplus/Shortfalls
Planning Standard	**1,480 MW**
2020 Equivalent Event	**-1,040 MW**
2022 Equivalent Event	**-2,650 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 provide support during an extreme event. Contingency resources, identified in Table 8 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.

Table 8: Contingency Resources for Summer 2025

Type	Contingency Resource	Available MW July	Available MW August	Available MW September
SRR [14]	DWR[15] Electricity Supply Strategic Reliability Reserve Program	3,079	3,079	3,079
SRR	Demand Side Grid Support	589	630	650
SRR	Distributed Electricity Backup Assets (under development)	0	0	0
CPUC	Ratepayer Programs (Emergency Load Reduction Program, Smart Thermostats, etc.) *	143	238	233
CPUC	Imports Beyond Stack*	0	25	25
CPUC	Capacity at Co-gen or Gas Units Above Resource Adequacy*	599	374	484

14 Strategic Reliability Reserve

15 Department of Water Resources

Type	Contingency Resource	Available MW July	Available MW August	Available MW September
Non-Program	Balancing Authority Emergency Transfers	300	300	300
Non-Program	Thermal Resources Beyond Limits: Gen Limits Needing 202c	25	25	25
	Total	4,735	4,671	4,796

***August and September estimates based on IOU excess procurement reports from 2024, plus known resources that were reported but not included.**

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

2025 Summer Energy Reliability Workshop

On May 2, the CEC hosted the Summer Energy Reliability Workshop[16] to provide an outlook for 2025 summer energy reliability for electricity and fossil gas. The workshop included presentations from CEC staff, external energy agencies, and the private sector. Topics included an overview of anticipated summer weather and fire conditions, new clean energy resources expected to come online, hydroelectric resource conditions, and an update on anticipated system reliability conditions for electricity and fossil gas.

Additionally, the CEC posted the California Energy Resource and Reliability Outlook,[17] which is the CEC's comprehensive, statewide assessment of electric and gas energy resource planning and reliability for the upcoming summer and midterm, spanning the next five years. The intent of the California Energy Resource and Reliability Outlook is to provide a complete picture of planning and reliability for all investor-owned utilities and publicly owned utilities in California from 2025–2029, based on available data. In contrast to the 2024 report, the 2025 report includes petroleum resources.

Recent and Upcoming Activities

The following activities occurred recently or are projected for the next quarter:

- Completion of Inputs and Assumptions Process for Integrated Resource Planning (IRP)
  - CPUC staff completed the 2025 Inputs and Assumptions process for IRP, updating the Inputs and Assumptions necessary for RESOLVE to run. RESOLVE is a capacity expansion model that projects, by year, the quantities and types of electricity generation and storage resources needed for the state to meet its emissions reductions goals and maintain its standard of reliability in a manner that is cost-effective for ratepayers. Inputs and Assumptions include load growth, technology costs, potential fuel costs, and policy constraints. CPUC held a public workshop on Inputs and Assumptions in February and solicited written comments from stakeholders in updating the values.
- Release of CPUC IRP Filing Requirements for CPUC-jurisdictional LSEs

16 Summer Energy Reliability Workshop, is available at (https://www.energy.ca.gov/event/workshop/2025-05/summer-energy-reliability-workshop).

17 California Energy Resource and Reliability Outlook 2025 is available at (https://www.energy.ca.gov/publications/2025/california-energy-resource-and-reliability-outlook-2025).

- All LSEs subject to the Commission's IRP process will be required to file and serve their individual IRPs with the CPUC later in 2025. CPUC staff plan to post Filing Requirements documents – the Narrative Template, the Resource Data Template, and the Clean Power System Calculator – on the CPUC website to assist individual LSEs in preparing their individual IRPs for Commission review. These materials are the final products from months of work to the two models (RESOLVE and SERVM) that CPUC uses to assess future electric system needs and performance.

- Release of Reliable and Clean Power Procurement Program Staff Proposal
  - On April 29, 2025, CPUC staff released a staff proposal for the Reliable and Clean Power Procurement Program and held a public workshop on May 16, 2025. The Reliable and Clean Power Procurement Program aims to establish a long-term procurement framework in the IRP process that, in combination with the resource adequacy and Renewables Portfolio Standard programs, could improve the process for LSEs to procure their share of the resources needed to meet electric system reliability and greenhouse gas emission reduction goals at least cost. CPUC staff subsequently hosted a two-day, hybrid-format workshop for party feedback and proposals on June 23-24, 2025.
- Resource Adequacy Proceeding Decision Adopting Local Capacity Obligations for 2026-2028, Flexible Capacity Obligations for 2026, and Program Refinements
  - Decision 25-06-048 set the near-term reliability requirements for CPUC's jurisdictional LSEs' obligations to procure System, Local, and Flexible Resource Adequacy capacity, which the CPUC issues annually. The decision adopted Local Capacity Requirements (LCR) for 2026-2028, Flexible Capacity Requirements (FCR) for 2026, and adopted a 18 percent PRM for LSEs under the Slice of Day (SOD) framework with an effective PRM procurement target of 1,260 – 2,300 MW for June to October months for the 2026 and 2027 RA compliance year. The decision also extended the Effective PRM – under which investor-owned utilities procure summer reliability resources beyond RA requirements – through 2027.
- Release of 2025 CPUC Biennial Aliso Assessment
  - CPUC staff will release their 2025 Biennial Aliso Assessment in late summer 2025[18], including demand reduction analysis, economic analysis, gas reliability analysis, and hydraulic modeling analysis. This analysis was laid out in Attachment A to D.24-12-076.
- Updates to Clean System Power Tool
  - CPUC staff will update the Clean System Power tool in July 2025. This tool assesses emissions of LSE-contracted resources into the future. Outputs from the tool are a major part of the IRP filing requirements process that the CPUC stewards; ensuring that CPUC-jurisdictional LSEs collectively contract for sufficient resources to ensure reliability while also reducing emissions, consistent with California statute, at the lowest cost. The updated Clean System Power tool will be released as part of the filing requirements over the summer.
- Distributed Electricity Backup Assets Program

[18] The winter Assessment is planned for an August release, and the summer Assessment is planned for a September release.

    - On August 14, 2024, the CEC approved the first of nine grant agreements under a Notice of Proposed Awards issued for Distributed Electricity Backup Assets Program grant funding opportunity for bulk grid efficiency upgrades and capacity additions at existing power plants. Three additional agreements were approved at the September 11, 2024, March 17, 2025, and May 8, 2025, business meetings. CEC staff expect to present the remaining five agreements for approval throughout 2025.
- Demand Side Grid Support Program
    - On April 10, 2025, the CEC adopted the Fourth Edition of the guidelines for its Demand Side Grid Support program for the 2025 summer season to improve program effectiveness and continue to grow participation from clean resources. Major modifications include adding energy emergency alert triggers for the storage virtual power plant participation option, monthly performance reporting, and a new emergency load flexibility virtual power plant participation option.
- Emergency Program and Energy Security Plan:
    - CEC staff continue to support monthly multi-agency and multi-state energy security calls and regional activities related to energy security planning and preparedness.
    - CEC staff continue to update and develop internal energy emergency resources and guidance documents.
    - Through 2025, CEC staff are finalizing updates to the California Energy Security Plan.
- Demand Activities:
    - Preliminary work for the 2025 *IEPR* Forecast is ongoing.

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

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 Development

IOU – Investor-owned Utility

IRP – Integrated Resource Planning

LSE – Load-serving entity

MTR – Mid-term reliability

MW - Megawatts

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 Independent System Operator 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 California Public Utilities Commission's (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 Independent System Operator system. CPUC Integrated Resource Planning 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.