Resource Tracking Data

Data current as of April 2025





Notes on Resource Tracking Data

Notes on Online MWs data

- All data are derived from CAISO <u>Master Generating Capability List</u>, and CPUC <u>NQC Lists</u> with online dates between Jan 1, 2020 – May 6, 2025
- Nameplate Capacity is shown as "Net Dependable Capacity" in the CAISO Master Generating List file.
- Data shown excludes imports, except where specified.
- NQC values are "Estimated September NQC" and subject to change based on counting rules or changes to resource configurations.
- Data showing "Number of Projects" is derived by counting each unique CAISO resource ID as a project.
- "Natural Gas" includes Alamitos Unit 7 (675 MW) and Huntington Beach (674 MW), online in Feb 2020.

Notes on Expected New MWs

- All data are from LSE self-reported contracting for projects expected to come online between 2025 and 2028.
- Data are subject to change as the CPUC gets updated information from LSEs, IOU interconnection departments, developers and others.
- CPUC staff continue to refine the data included herein. Data in this presentation are current up until March 2025 and any subsequent postings will supersede prior postings.
- Data included here are only the projects under contract to CPUC jurisdictional LSEs, and do not include all resources being developed in the state nor the CAISO footprint.

Notes on Differences between Resource Tracking Data and IRP Compliance

• Due to numerous differences, such as varied baselines and resource eligibility for compliance, data on New MW Online plus New MW Expected do not exactly match progress towards IRP compliance orders. For information on compliance with IRP Procurement orders, see compliance updates at IRP Procurement Track (ca.gov).

Notes on Updates and Questions

- For the most up-to-date data publicly available, please visit the CPUC's Summer Reliability page.
- For any questions about the data, please contact <u>irpdatarequest@cpuc.ca.gov</u>

Part 1: New MW Online

- New Resources Online from 1/1/2020 to 5/6/2025
 - By Nameplate, NQC, and Number of Projects
- New Resources Online by Year and Resource Type
 - By Nameplate and NQC
- New IRP Procurement Resources Online by Year and Resource Type
 - By Nameplate and NQC

New MWs - Key Takeaways

Total New MW Online between 1/1/2020 - 5/6/2025

	Nameplate Capacity (MW) Estimated Sept. Net Qualifying Capacity (NQC) MW		Number of Projects by Resource IDs
New SB100 Resources, IN-CAISO	22,272	14,573	339
New Resources, IN-CAISO (includes Natural Gas)	23,811	16,059	356
Total New Reliability Resources, including Imports	25,844	17,121	372

Note: SB100 resources include all eligible renewable energy resources and zero-carbon resources for compliance with California's SB 100 clean energy targets.

Total Storage Online (all time)

	Nameplate Capacity (MW)	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects by Resource IDs
Battery Energy Storage Systems (BESS) Projects (Including Standalone BESS & Hybrids)	12,326	11,643	187 (incl. 28 hybrids)

Note: MW only include storage portion of hybrids. Includes CAISO imports.

New Energy Resources Online

New Resources Additions, January 1, 2020 – May 6, 2025, Cumulative

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects
STORAGE	11,017	10,488	148
SOLAR	8,039	2,469	130
HYBRID (STORAGE/SOLAR)	1,991	1,336	26
WIND	1,145	248	23
GEOTHERMAL	41	31	1
BIOGAS, BIOMAS, HYDRO	39	0	11
Subtotal Total New SB100 Resources, IN-CAISO	22,272	14,573	339
NATURAL GAS, incl. Alamitos & Huntington Beach	1,539	1,487	17
Total New Resources, IN-CAISO	23,811	16,059	356
New Imports, Pseudo-Tie or Dynamically Scheduled	2,033	1,061	16
Total New Resources, including Imports	25,844	17,121	372

Notes:

All data shown derived from CAISO Master Generating Capability List, and CPUC NQC Lists.

Nameplate Capacity is shown as "Net Dependable Capacity" in the CAISO Master Generating List file. Data shown excludes imports, except where specified. All NQC values are "September NQC" and subject to change based on counting rules and additions to monthly CPUC NQC Lists. "Project" is defined as a unique CAISO resource ID. "Natural Gas" includes Alamitos Unit 7 (675 MW) and Huntington Beach (674 MW) added in Feb 2020. SB100 resources include all eligible renewable energy resources and zero-carbon resources for compliance with California's SB 100 clean energy targets.

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
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 SB100 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

New MWs Online – Sept NQC By Year and Resource Type

Data includes projects online as of May 6, 2025

Technology Type	2020	2021	2022	2023	2024	2025*	Total MW	# Projects
SOLAR	500	451	333	655	561	0	2,469	130
STORAGE	100	1,612	1,906	2,448	3,474	949	10,488	148
HYBRID (SOLAR + STORAGE)	0	15	668	253	331	68	1,336	26
WIND	3	65	80	38	69	0	248	23
GEOTHERMAL	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	4
BIOGAS	0	0	0	0	0	0	0	3
Subtotal Total New SB100 Resources, IN-CAISO	603	2,144	2,988	3,394	4,592	1,017	14,573	339
NATURAL GAS, incl. Alamitos & Huntington Beach	1,448	15	11	0	13	0	1,487	17
Total New Resources, IN-CAISO	2,051	2,159	2,998	3,394	4,605	1,017	16,059	356
New Imports, Pseudo-Tie or Dynamically Scheduled	390	387	33	50	201	0	1,061	16
Total New Resources, including Imports	2,441	2,546	3,031	3,444	4,806	1,017	17,121	372

^{*}Note: Some new projects have not yet made it onto the CPUC's monthly NQC list and have not yet been assigned NQC. Future reports will_include updated NQC amounts for these resources.

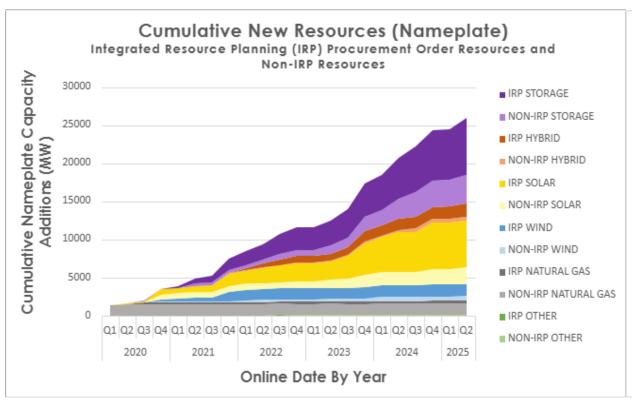
New MWs Online April 2025 Additions

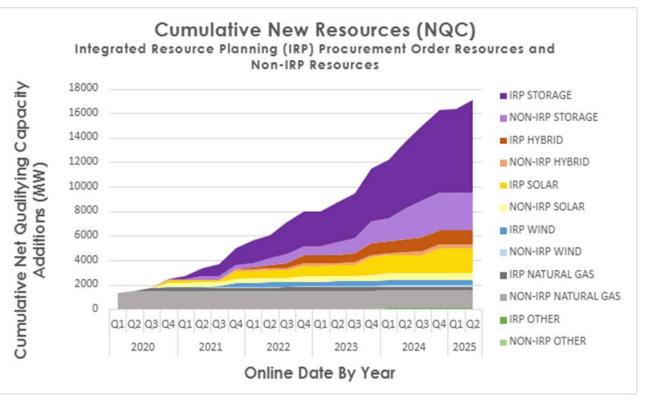
Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	# Projects
STORAGE	422	354*	5
HYBRID	150	0*	1
Total New Resources, IN-CAISO	572	354*	6
New Imports, Pseudo-Tie or Dynamically Scheduled	150	0	1
Total New Resources, including Imports	722	354*	7

IRP Procurement

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	# Projects
STORAGE	295	228*	3
HYBRID	150	0*	1
Total New IRP Procurement	445	228*	4

Total New Procurement By Year and Resource Type

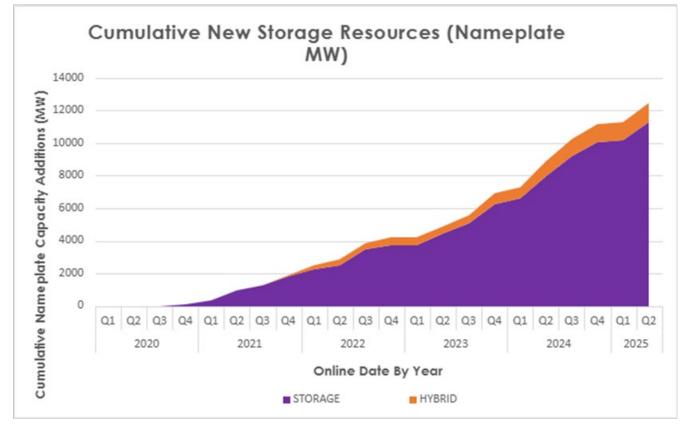




Note: Data shown here shows a snapshot of new resources added to the CAISO grid Q12020 – Q2 2025, including specified CAISO imports. "Other" resources include geothermal, biomass, biogas, and hydropower. Hybrids include some storage, and some other (usually solar) technology. "IRP Procurement Order Resources" refer to resources claimed for compliance with IRP Procurement Orders; "Non-IRP Resources" include resources that are not counting towards IRP Procurement order compliance, which occurs for a variety of reasons such as the resource was in development prior to IRP orders, the resource is energy-only, the resource is not under contract to a CPUC jurisdictional entity, etc.

NQC = Net qualifying capacity (NQC) and represents the amount the resource contributes to reliability; NQC can vary over time, and for each month of the year; the values shown are indicative of September NQC values for the resources.

Total Storage Online By Year



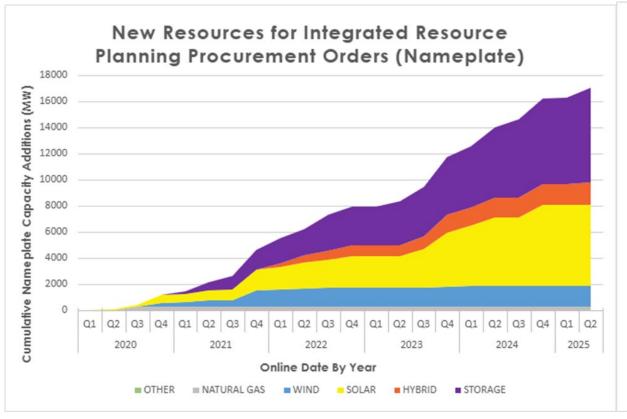
Note: Data shown here shows a snapshot of new resources added to the CAISO grid Q1 2020 – Q2 2025, including specified CAISO imports. Hybrids include some storage, and some other (usually solar) technology. MW shown here only include the storage portion of hybrids.

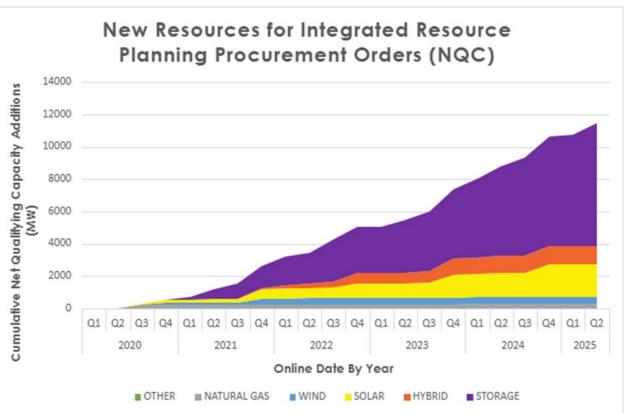
- Installed to date: Roughly 12,500 MW of storage nameplate capacity is online serving the grid as of April 2025, including imports.
 - Includes ~150 MW of storage added prior to 2020
 - Includes standalone battery storage and the storage component of hybrid resources
- Expected future installs: Over 12,000 MW nameplate capacity of additional storage resources are under contract and expected to come online by 2028.

Part 2: Integrated Resource Planning Compliance

- New IRP Procurement MW by Year and Resource Type- Nameplate
- New IRP Procurement MW by Year and Resource Type NQC

New IRP Procurement By Year and Resource Type





Note: Data shown here shows a snapshot of new resources added to the CAISO grid Q1 2020 – Q2 2025 for compliance with Integrated Resource Planning (IRP) procurement orders, including specified CAISO imports. "Other" resources includes geothermal, biomass, biogas, and hydropower. Hybrids include some storage, and some other (usually solar). Additional resources have come online for other reasons in this time period but are not included in these figures.

See: IRP Procurement Track (ca.gov) for more information about IRP Procurement Order Compliance.

Part 3: Expected New MWs based on LSE Contracts to date

- Expected New MW by Year and Resource Type- Nameplate
- Expected New MW by Year and Resource Type NQC
- Total New Energy Resources Online and Under Contract Nameplate

New MWs Expected - Nameplate By Year and Resource Type, including imports

Data includes projects expected/under contract as of April 10, 2025

Resource Type	2025	2026	2027	2028	Total
Solar	639	1,420	327	150	2,536
Battery Storage	3,102	3,486	3,622	940	11,150
Paired/Hybrid	665	1,264	1,271	120	3,320
Wind	51	1,455	250	18	1,774
Geothermal	10	142	178	450	780
Biomass/Biogas	10	-	-	-	10
Totals	4,477	7,767	5,647	1,678	19,569

- Nearly 20,000 MW
 nameplate of future
 contracts are executed to
 meet CPUC's procurement
 order obligations.
- Majority of new resource MWs are expected to be battery storage.
- Other types of resources are eligible to meet orders and may be contracted in the future.

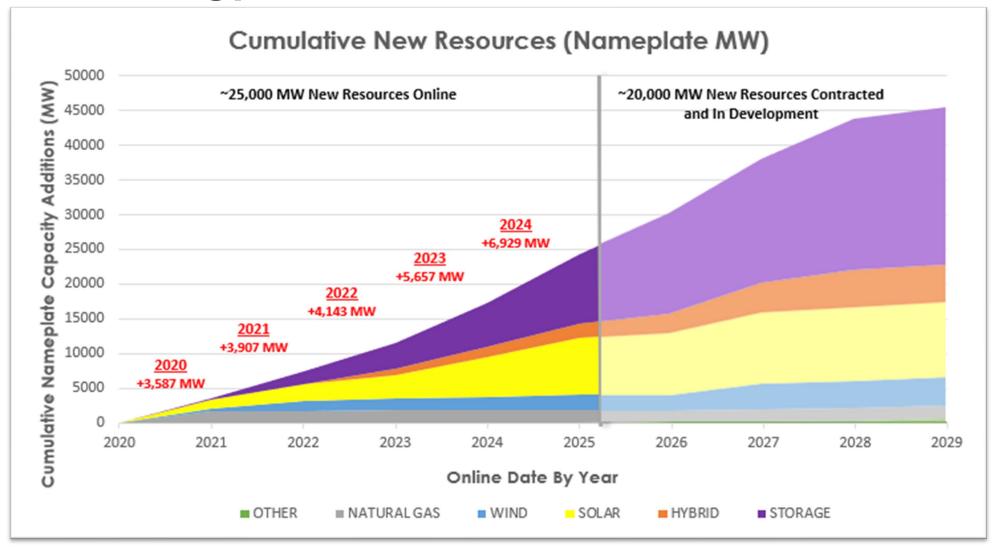
New MWs Expected - NQC By Year and Resource Type, including imports

Data includes projects expected/under contract as of April 10, 2025

Resource Type	2025	2026	2027	2028	Total
Solar	273	261	155	-	689
Battery Storage	2,746	3,303	3,219	895	10,163
Paired/Hybrid	497	925	856	33	2,311
Wind	16	398	84	4	502
Geothermal	9	139	173	445	766
Biomass/Biogas	10	-	-	-	10
Totals	3,551	5,026	4,487	1,378	14,441

- Nearly 15,000 MW NQC of future contracts are executed to meet CPUC's procurement order obligations.
- Majority of new resource MWs are expected to be battery storage.
- Other types of resources are eligible to meet orders and may be contracted in the future.

Total New Energy Resources Online and Under Contract



Note: Data shown here shows a snapshot of new resources added to CAISO grid Q12020 – Q2 2025, including specified CAISO imports. Also shown is a projection of future new resources based on contracts in place by February 2025. "Other" resources includes geothermal, biomass, biogas, and hydropower.

Links to Other Key References on New Resource Development

References to Related Information

- (1) Tracking Energy Development Task Force <u>Tracking Energy Development (ca.gov)</u>
- (2) Joint Agency Reliability Planning Assessments pursuant to SB 846
 - May 2024 Report
 - August 2024 Report
 - March 2025 Report
 - May 2025 Report
- (3) California Energy Commission's Energy Almanac Energy Almanac (ca.gov)
- (4) CAISO Key Energy Statistics: <u>Media resources | California ISO (caiso.com)</u>
- (5) Overview of CPUC IRP Procurement Orders IRP Procurement Track (ca.gov)
- (6) Overview of CPUC Jurisdictional LSE Procurement in Compliance with IRP Procurement Orders
 - Procurement in Compliance with D.19-11-016 and Mid Term Reliability (D.21-06-035) per December 1, 2023, 10/9/2024
 - Procurement in Compliance with D.19-11-016 and Mid Term Reliability (D.21-06-035) per August 1, 2023, 4/22/2024
 - Procurement in Compliance with D.19-11-016 and Mid Term Reliability (D.21-06-035) per February 1, 2023, 11/2/2023
 - Procurement in Compliance with D.19-11-016 per August 1, 2022 Fillings, 2/13/2023
 - Procurement in Compliance with D.19-11-016 per February 1, 2022 Filings, 7/22/2022
 - Procurement in Compliance with D.19-11-016 per February 1, 2021 Filings, 8/23/2021

For any questions about the data, please contact irpdatarequest@cpuc.ca.gov