

Resource Tracking Data

Data current as of October 2024



California Public
Utilities Commission



Notes on Resource Tracking Data

- **Notes on Online MWs data**

- All data are derived from CAISO [Master Generating Capability List](#), and CPUC [NQC Lists](#) with online dates between **Jan 1, 2020 – November 8, 2024**
- 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 2024 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 October 2024 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 irpdatarequest@cpuc.ca.gov

Part 1: New MW Online

- New Resources Online from 1/1/2020 to 11/8/2024
 - 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

Data includes projects online as of November 8, 2024

New MWs - Key Takeaways

Total New MW Online between 1/1/2020 - 11/8/2024

	Nameplate Capacity (MW)	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects by Resource IDs
New SB100 Resources, IN-CAISO	19,703	10,176	308
New Resources, IN-CAISO (includes Natural Gas)	21,180	11,650	320
Total New Reliability Resources, including Imports	22,931	12,577	334

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)	10,526	9,682	170 (incl. 27 hybrids)

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

New Energy Resources Online

Data includes projects online as of November 8, 2024

New Resources Additions, Jan 1, 2020 – November 8, 2024, Cumulative

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects
STORAGE	9,333	8,713	133
SOLAR	7,333	537	117
HYBRID (STORAGE/SOLAR)	1,839	758	24
WIND	1,118	138	22
GEOHERMAL	41	31	1
BIOGAS, BIOMAS, HYDRO	39	0	11
Subtotal Total New SB100 Resources, IN-CAISO	19,703	10,176	308
NATURAL GAS, incl. Alamitos & Huntington Beach	1,477	1,474	12
Total New Resources, IN-CAISO	21,180	11,650	320
New Imports, Pseudo-Tie or Dynamically Scheduled	1,751	927	14
Total New Resources, including Imports	22,931	12,577	334

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.



New MWs Online - Nameplate

By Year and Resource Type

Data includes projects online as of November 8, 2024

Technology Type	2020	2021	2022	2023	2024 to date	Total MW	# Projects
SOLAR	1,300	1,048	913	2,482	1,590	7,333	117
STORAGE	101	1,703	1,907	2,528	3,094	9,333	133
HYBRID (SOLAR + STORAGE)	0	26	890	470	453	1,839	24
WIND	16	304	367	171	260	1,118	22
GEOTHERMAL	0	0	0	0	41	41	1
HYDRO	26	0	0	0	0	26	4
BIOMASS	0	2	3	3	0.5	8	4
BIOGAS	1	0	2	3	0	6	3
Subtotal Total New SB100 Resources, IN-CAISO	1,444	3,083	4,082	5,657	5,439	19,703	308
NATURAL GAS, incl. Alamitos & Huntington Beach	1,448	17	12	0	0	1,477	12
Total New Resources, IN-CAISO	2,892	3,100	4,094	5,657	5,439	21,180	320
New Imports, Pseudo-Tie or Dynamically Scheduled	695	807	49	50	150	1,751	14
Total New Resources, including Imports	3,587	3,907	4,143	5,707	5,589	22,931	334

New MWs Online – Sept NQC

By Year and Resource Type

Data includes projects online as of November 8, 2024

Technology Type	2020	2021	2022	2023	2024 to date*	Total MW	# Projects
SOLAR	126	110	78	188	36	537	117
STORAGE	100	1,616	1,906	2,448	2,644	8,713	133
HYBRID (SOLAR + STORAGE)	0	8	440	214	95	758	24
WIND	7	41	46	30	13	138	22
GEOHERMAL	0	0	0	0	31	31	1
HYDRO	0	0	0	0	0	0	4
BIOMASS	0	0	0	0	0	0	4
BIOGAS	0	0	0	0	0	0	3
Subtotal Total New SB100 Resources, IN-CAISO	233	1,775	2,470	2,879	2,818	10,176	308
NATURAL GAS, incl. Alamitos & Huntington Beach	1,448	16	12	0	0	1,474	12
Total New Resources, IN-CAISO	1,681	1,791	2,481	2,879	2,818	11,650	320
New Imports, Pseudo-Tie or Dynamically Scheduled	380	317	30	50	150	927	14
Total New Resources, including Imports	2,061	2,108	2,511	2,929	2,968	12,577	334

New MWs Online

October 2024 Additions

Data includes projects online as of November 8, 2024

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	# Projects
STORAGE	153	0*	3
SOLAR	387	0*	5
Total New Resources, IN-CAISO	540	0*	8
New Imports, Pseudo-Tie or Dynamically Scheduled	0	0	0
Total New Resources, including Imports	540	0*	8

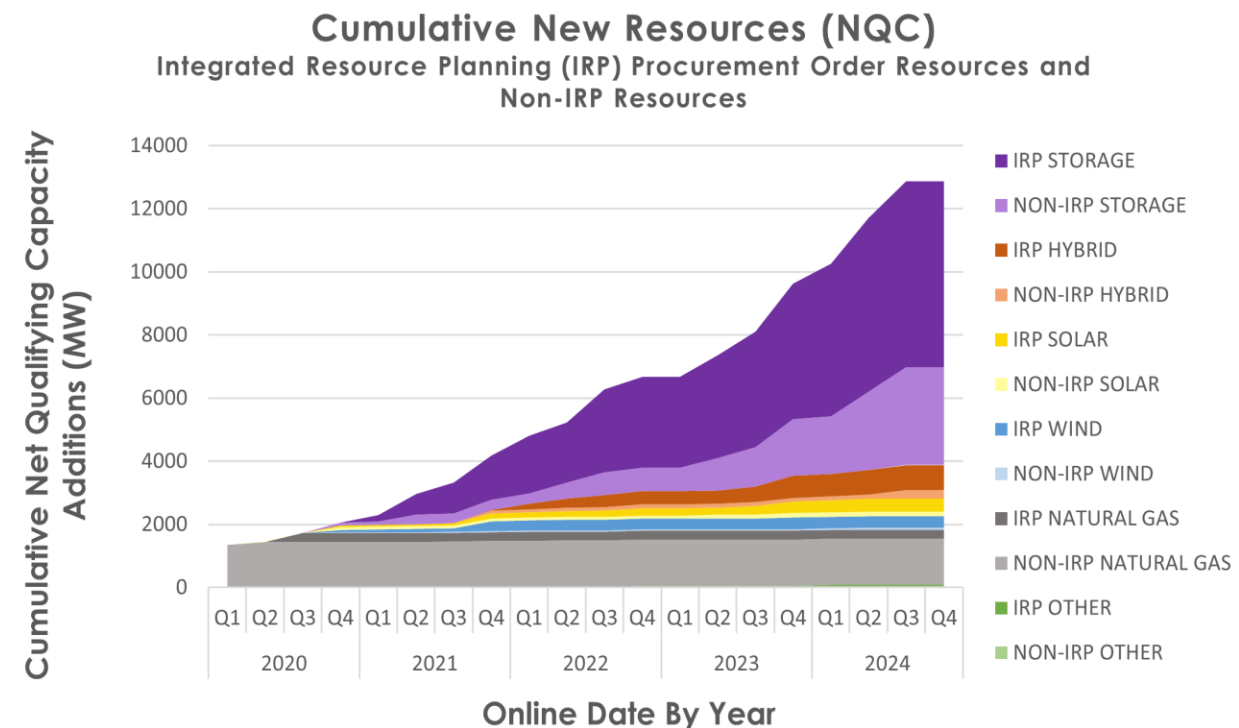
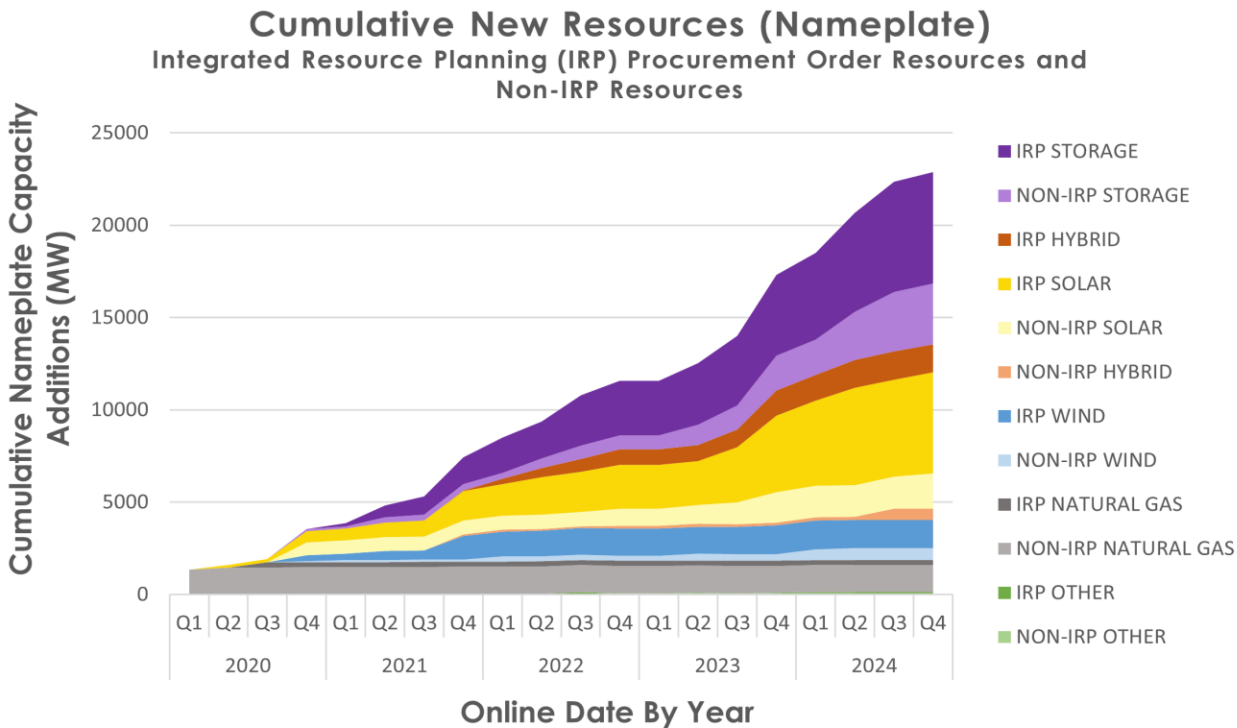
IRP Procurement

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	# Projects
STORAGE	80	0*	1
SOLAR	200	0*	1
Total New IRP Procurement	280	0*	2

*Note: 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.

Total New Procurement By Year and Resource Type

Data includes projects online as of November 8, 2024

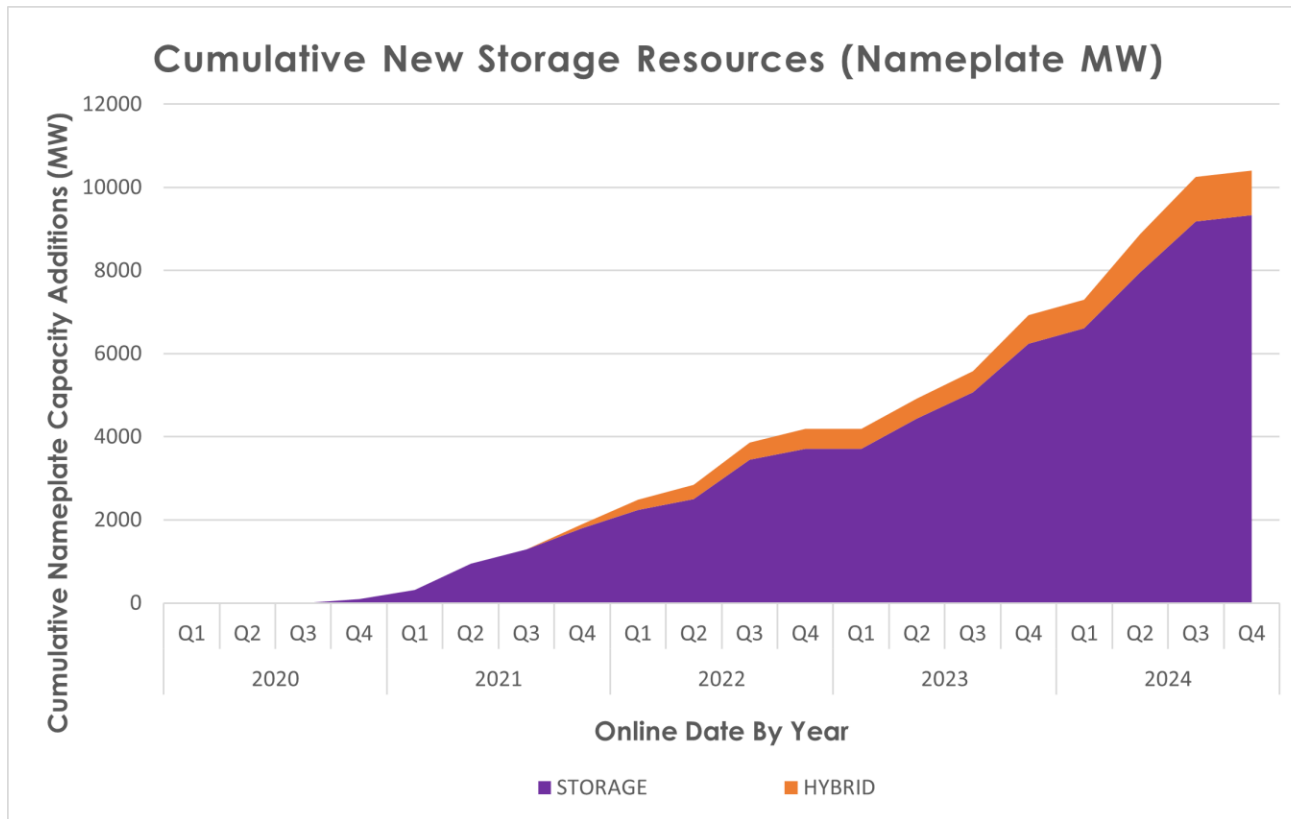


Note: Data shown here shows a snapshot of new resources added to the CAISO grid Q12020 – Q4 2024, including specified CAISO imports. "Other" resources include geothermal, biomass, biogas, and hydropower. Hybrids include some storage, and some other (usually solar) technology. "IRP Procurement Order Resources" 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

Data includes projects online as of November 8, 2024



Note: Data shown here shows a snapshot of new resources added to the CAISO grid Q12020 – Q4 2024, including specified CAISO imports. Hybrids include some storage, and some other (usually solar) technology. MW shown here only include the storage portion of hybrids.

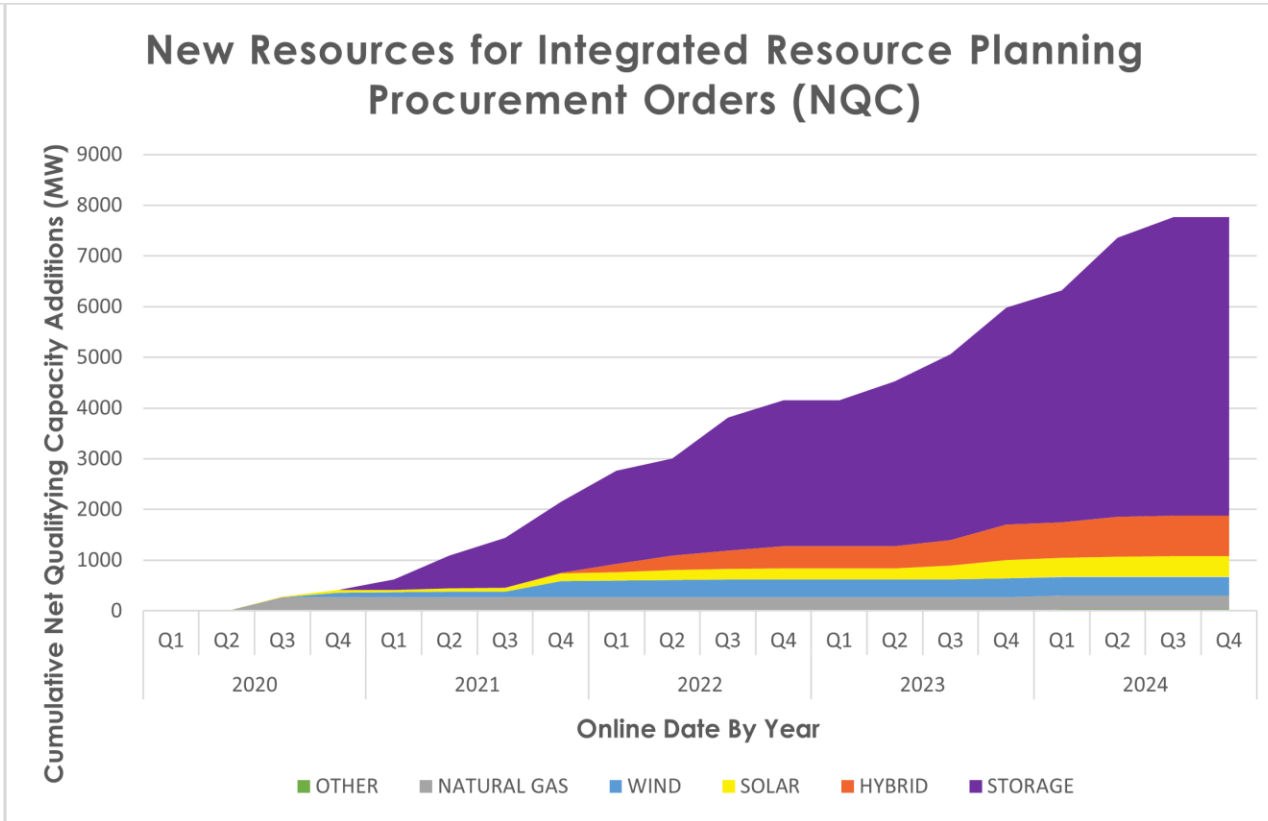
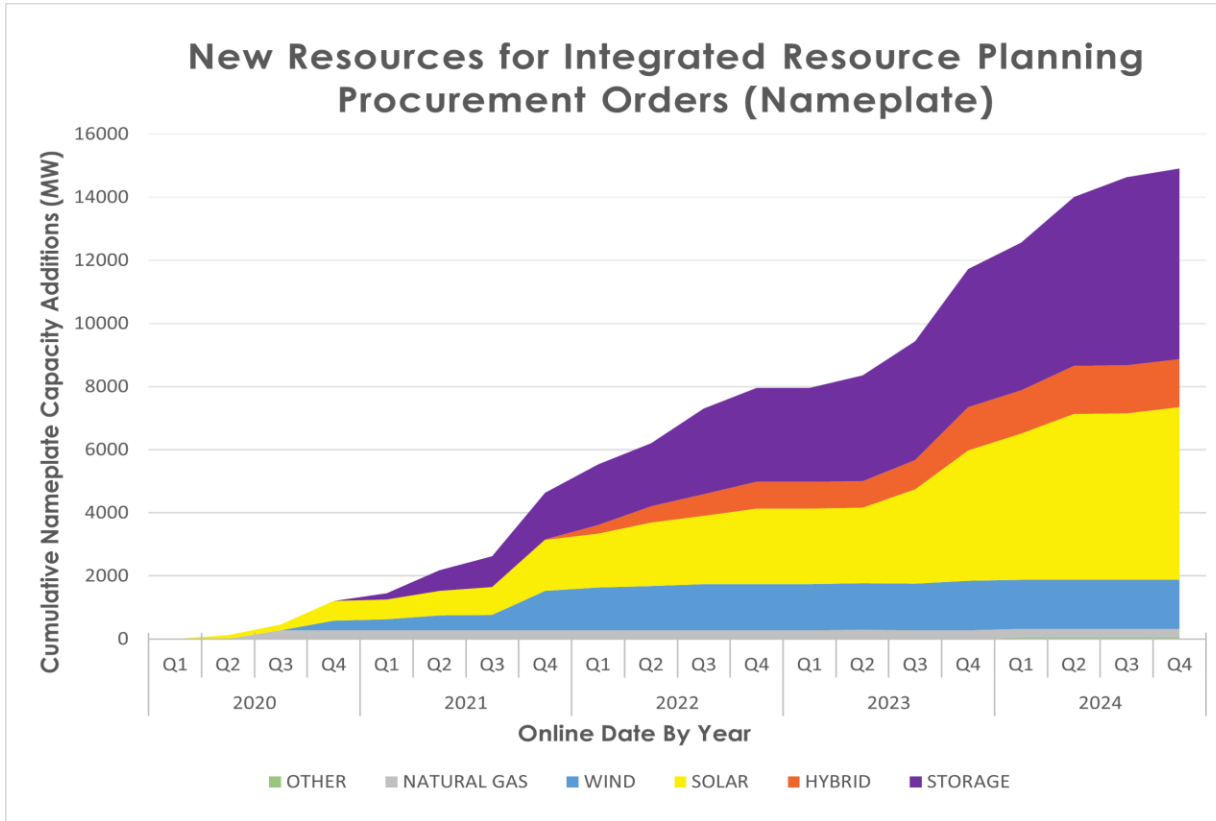
- **Installed to date:** Over 10,000 MW of storage nameplate capacity is online serving the grid as of October 2024, including imports.
 - Includes ~150 MW of storage added prior to 2020
 - Includes standalone batteries storage and the storage component of hybrid resources
- **Expected future installs:** ~14,600 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

Data includes projects online as of November 8, 2024



Note: Data shown here shows a snapshot of new resources added to the CAISO grid Q1 2020 – Q4 2024 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 \(ca.gov\)](https://www.cpuc.ca.gov/IRP-Procurement-Track) 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 October 2024

Resource Type	Q4 2024	2025	2026	2027	2028	Total
Solar	465	631	835	320	0	2,251
Battery Storage	1,580	3,528	2,346	3,883	290	11,627
Paired/Hybrid	88	1,004	709	1,089	70	2,960
Wind	0	71	1,583	250	0	1,904
Geothermal	0	15	179	30	284	508
Biomass/Biogas	5	11	0	0	0	16
Totals	2,138	5,260	5,652	5,572	644	19,266

- Over 19,000 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 and hybrid solar+storage.
- Other types of resources are eligible to meet orders and may be contracted in the future.

New MWs Expected - NQC

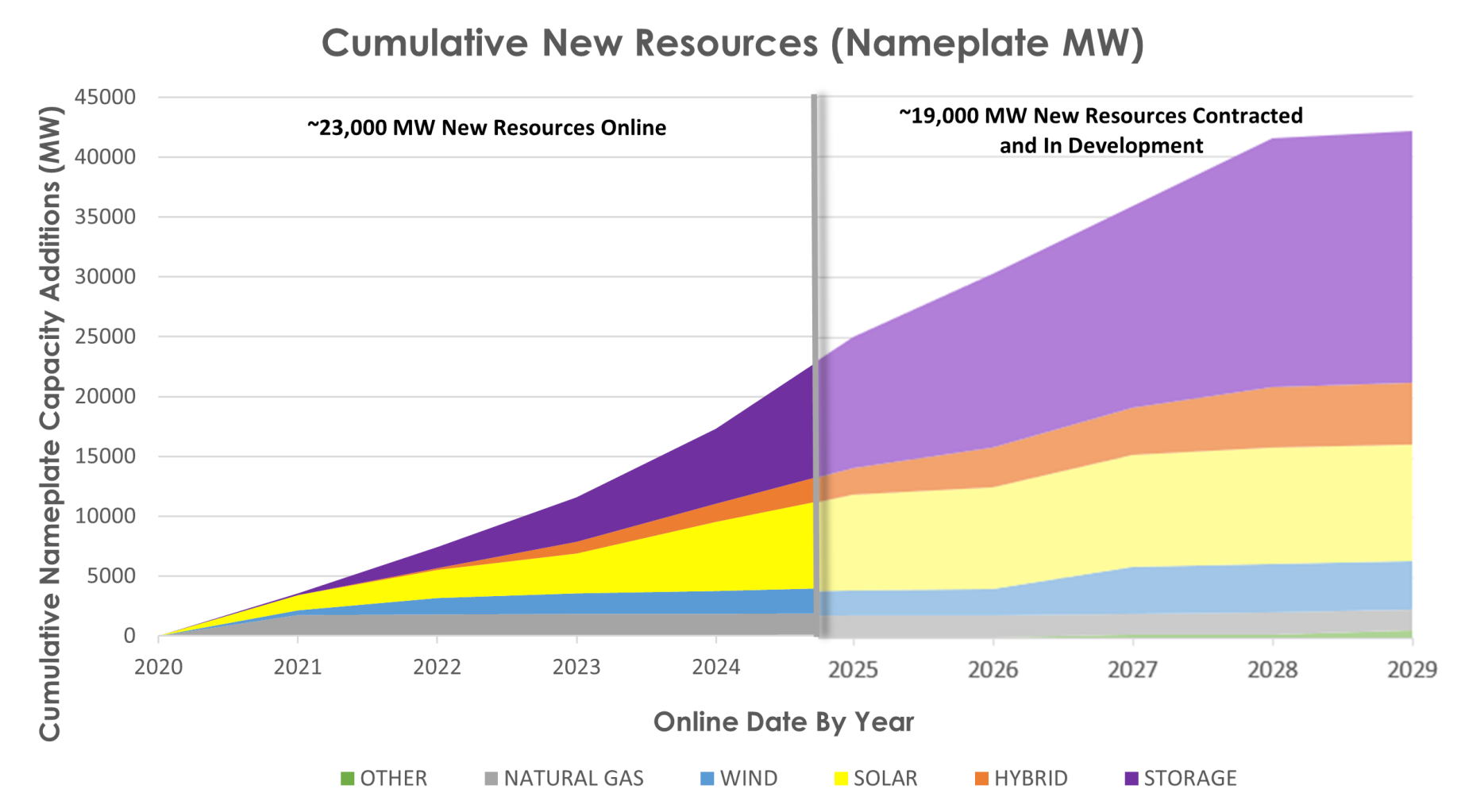
By Year and Resource Type, including imports

Data includes projects expected/under contract as of October 2024

Resource Type	Q4 2024	2025	2026	2027	2028	Total
Solar	127	252	208	0	0	587
Battery Storage	1,039	3,379	2,187	3,513	243	10,361
Paired/Hybrid	76	505	502	720	33	1,836
Wind	0	16	430	84	0	530
Geothermal	0	14	168	29	281	492
Biomass/Biogas	5	11	0	0	0	16
Totals	1,248	4,176	3,496	4,344	557	13,821

- Nearly 14,000 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 and hybrid solar+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 – Q4 2024, including specified CAISO imports. Also shown is a projection of future new resources based on contracts in place by October 2024. "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 – [Tracking Energy Development \(ca.gov\)](#)
- (2) Joint Agency Reliability Planning Assessments – pursuant to SB 846
 - [February 2023 Report](#)
 - [May 2023 Report](#)
 - [August 2023 Report](#)
 - [December 2023 Report](#)
 - [May 2024 Report](#)
 - [August 2024 Report](#)
- (3) California Energy Commission’s Energy Almanac - [Energy Almanac \(ca.gov\)](#)
- (4) CAISO Key Energy Statistics: [Media resources | California ISO \(caiso.com\)](#)
- (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 Filings, 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