

# Resource Tracking Data

Data current as of November 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 – December 9, 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 November 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](mailto:irpdatarequest@cpuc.ca.gov)

# Part 1: New MW Online

- New Resources Online from 1/1/2020 to 12/9/2024
  - 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 December 9, 2024

# New MWs - Key Takeaways

## Total New MW Online between 1/1/2020 - 12/9/2024

	Nameplate Capacity (MW)	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects by Resource IDs
New SB100 Resources, IN-CAISO	19,874	12,708	310
New Resources, IN-CAISO (includes Natural Gas)	21,609	14,182	327
<b>Total New Reliability Resources, including Imports</b>	<b>23,360</b>	<b>15,109</b>	<b>341</b>

## Total Storage Online (all time)

	Nameplate Capacity (MW)	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects by Resource IDs
<b>Battery Energy Storage Systems (BESS) Projects (Including Standalone BESS &amp; Hybrids)</b>	<b>10,692</b>	<b>10,109</b>	<b>173 (incl. 27 hybrids)</b>

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

# New Energy Resources Online

Data includes projects online as of December 9, 2024

## New Resources Additions, Jan 1, 2020 – December 9, 2024, Cumulative

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	Number of Projects
STORAGE	9,499	8,983	136
SOLAR	7,338	2,176	116
HYBRID (STORAGE/SOLAR)	1,839	1,253	24
WIND	1,118	265	22
GEOHERMAL	41	31	1
BIOGAS, BIOMAS, HYDRO	39	0	11
<b>Subtotal Total New SB100 Resources, IN-CAISO</b>	<b>19,874</b>	<b>12,708</b>	<b>310</b>
NATURAL GAS, incl. Alamitos & Huntington Beach	1,735	1,474	17
<b>Total New Resources, IN-CAISO</b>	<b>21,609</b>	<b>14,182</b>	<b>327</b>
New Imports, Pseudo-Tie or Dynamically Scheduled	1,751	927	14
<b>Total New Resources, including Imports</b>	<b>23,360</b>	<b>15,109</b>	<b>341</b>

### 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 December 9, 2024

Technology Type	2020	2021	2022	2023	2024 to date	Total MW	# Projects
SOLAR	1,300	1,048	913	2,482	1,595	<b>7,338</b>	117
STORAGE	101	1,703	1,907	2,528	3,259	<b>9,499</b>	136
HYBRID (SOLAR + STORAGE)	0	26	890	470	453	<b>1,839</b>	24
WIND	16	304	367	171	260	<b>1,118</b>	22
GEOTHERMAL	0	0	0	0	41	<b>41</b>	1
HYDRO	26	0	0	0	0	<b>26</b>	4
BIOMASS	0	2	3	3	0.5	<b>8</b>	4
BIOGAS	1	0	2	3	0	<b>6</b>	3
<b>Subtotal Total New SB100 Resources, IN-CAISO</b>	<b>1,444</b>	<b>3,083</b>	<b>4,082</b>	<b>5,657</b>	<b>5,608</b>	<b>19,874</b>	<b>310</b>
NATURAL GAS, incl. Alamitos & Huntington Beach	1,448	17	12	0	259	1,735	17
<b>Total New Resources, IN-CAISO</b>	<b>2,892</b>	<b>3,100</b>	<b>4,094</b>	<b>5,657</b>	<b>5,867</b>	<b>21,609</b>	<b>327</b>
New Imports, Pseudo-Tie or Dynamically Scheduled	695	807	49	50	150	1,751	14
<b>Total New Resources, including Imports</b>	<b>3,587</b>	<b>3,907</b>	<b>4,143</b>	<b>5,707</b>	<b>6,017</b>	<b>23,360</b>	<b>341</b>

# New MWs Online – Sept NQC

## By Year and Resource Type

Data includes projects online as of December 9, 2024

Technology Type	2020	2021	2022	2023	2024 to date*	Total MW	# Projects
SOLAR	500	451	333	655	236	<b>2,176</b>	117
STORAGE	100	1,612	1,906	2,448	2,918	<b>8,983</b>	136
HYBRID (SOLAR + STORAGE)	0	15	668	283	286	<b>1,253</b>	24
WIND	7	71	80	38	69	<b>265</b>	22
GEOHERMAL	0	0	0	0	31	<b>31</b>	1
HYDRO	0	0	0	0	0	<b>0</b>	4
BIOMASS	0	0	0	0	0	<b>0</b>	4
BIOGAS	0	0	0	0	0	<b>0</b>	3
<b>Subtotal Total New SB100 Resources, IN-CAISO</b>	<b>607</b>	<b>2,150</b>	<b>2,987</b>	<b>3,424</b>	<b>3,541</b>	<b>12,708</b>	<b>310</b>
NATURAL GAS, incl. Alamitos & Huntington Beach	1,448	15	11	0	0	1,474	17
<b>Total New Resources, IN-CAISO</b>	<b>2,055</b>	<b>2,165</b>	<b>2,998</b>	<b>3,424</b>	<b>3,541</b>	<b>14,182</b>	<b>327</b>
New Imports, Pseudo-Tie or Dynamically Scheduled	380	317	30	50	150	927	14
<b>Total New Resources, including Imports</b>	<b>2,435</b>	<b>2,482</b>	<b>3,028</b>	<b>3,474</b>	<b>3,691</b>	<b>15,109</b>	<b>341</b>

# New MWs Online

## November 2024 Additions

Data includes projects online as of December 9, 2024

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	# Projects
STORAGE	165	0*	3
NATURAL GAS	259	0*	5
SOLAR	5	0*	1
<b>Total New Resources, IN-CAISO</b>	<b>429</b>	<b>0*</b>	<b>9</b>
New Imports, Pseudo-Tie or Dynamically Scheduled	0	0	0
<b>Total New Resources, including Imports</b>	<b>429</b>	<b>0*</b>	<b>9</b>

## IRP Procurement

Technology Type	Nameplate Capacity MW	Estimated Sept. Net Qualifying Capacity (NQC) MW	# Projects
STORAGE	82	0*	1
<b>Total New IRP Procurement</b>	<b>82</b>	<b>0*</b>	<b>1</b>

\*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.

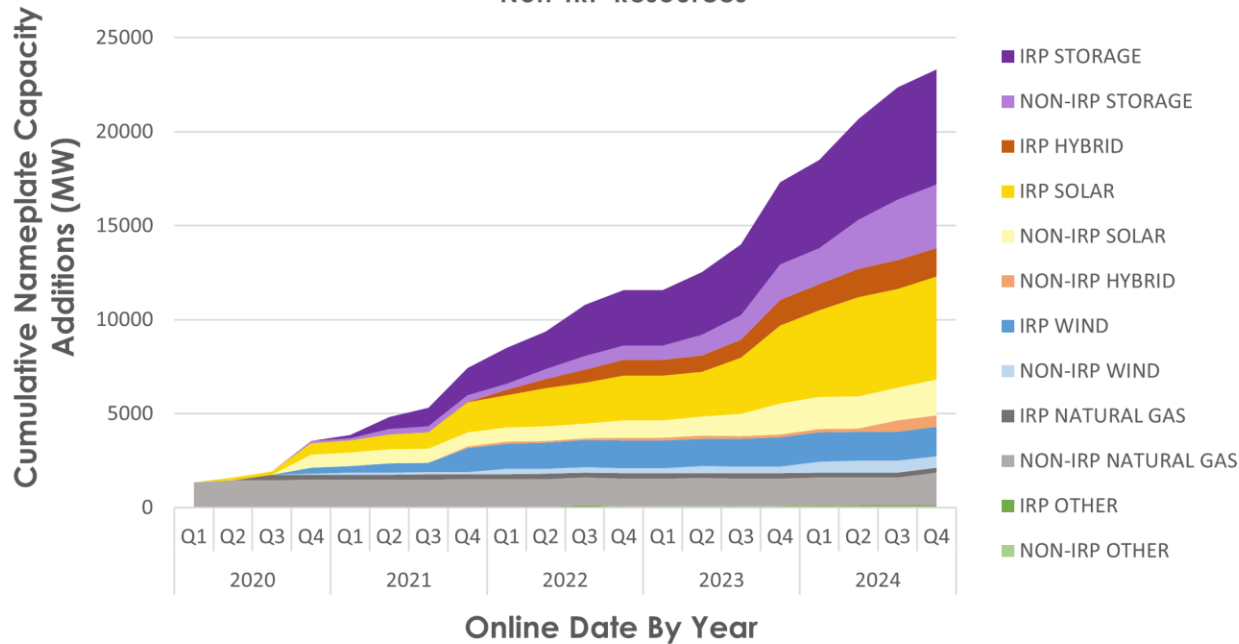


# Total New Procurement By Year and Resource Type

Data includes projects online  
as of December 9, 2024

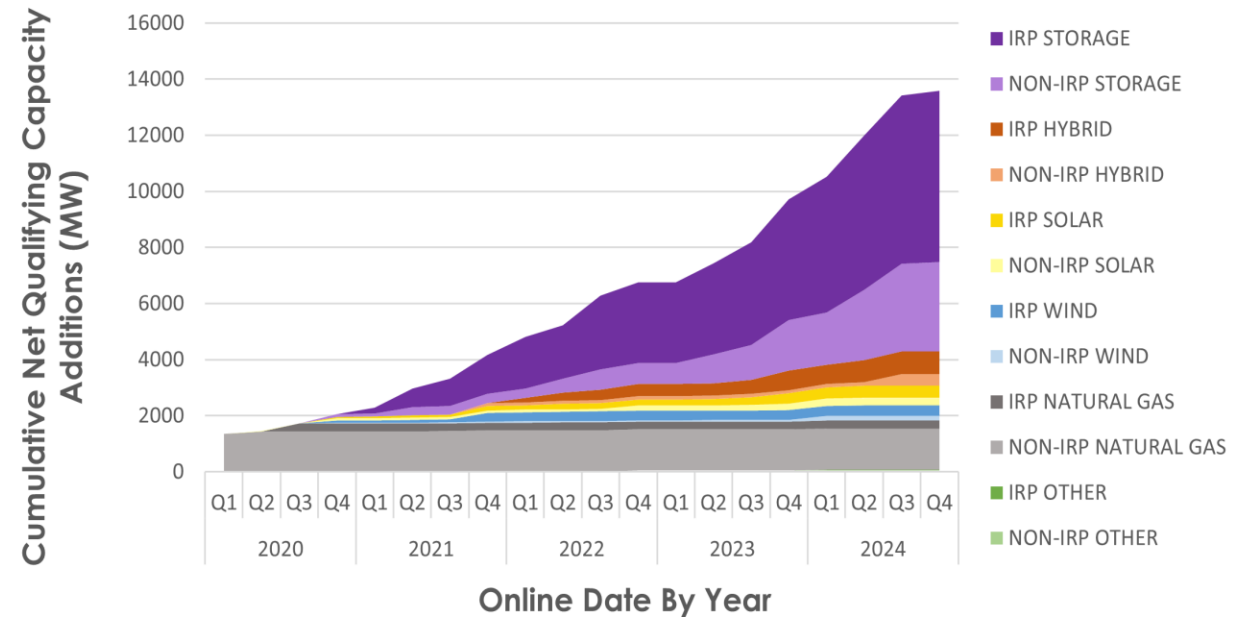
### Cumulative New Resources (Nameplate)

Integrated Resource Planning (IRP) Procurement Order Resources and  
Non-IRP Resources



### Cumulative New Resources (NQC)

Integrated Resource Planning (IRP) Procurement Order Resources and  
Non-IRP Resources

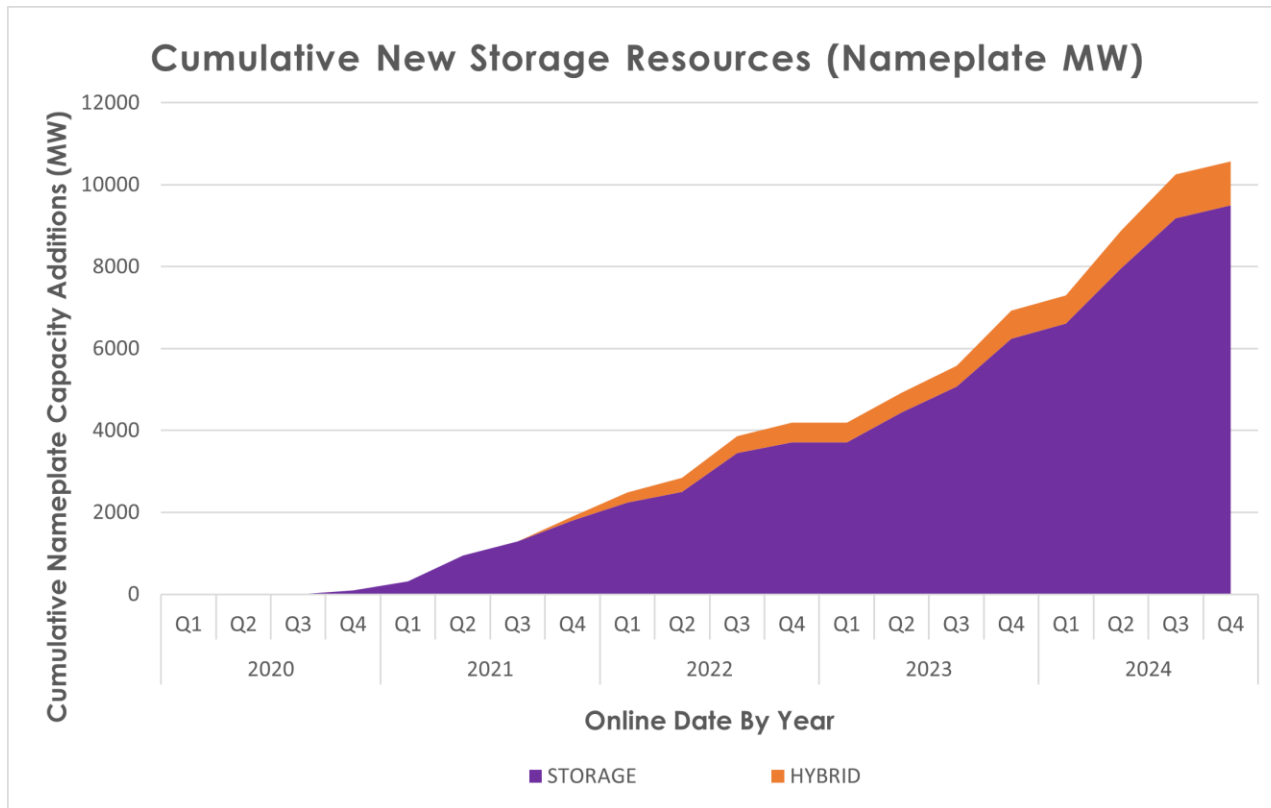


**Note:** Data shown here shows a snapshot of new resources added to the CAISO grid Q12020 – Q4 2024, including specified CAISO imports. "Other" resources include geothermal, biomass, biogas, and hydropower. Hybrids include some storage, and some other (usually solar) technology. "IRP Procurement Order 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 December 9, 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.

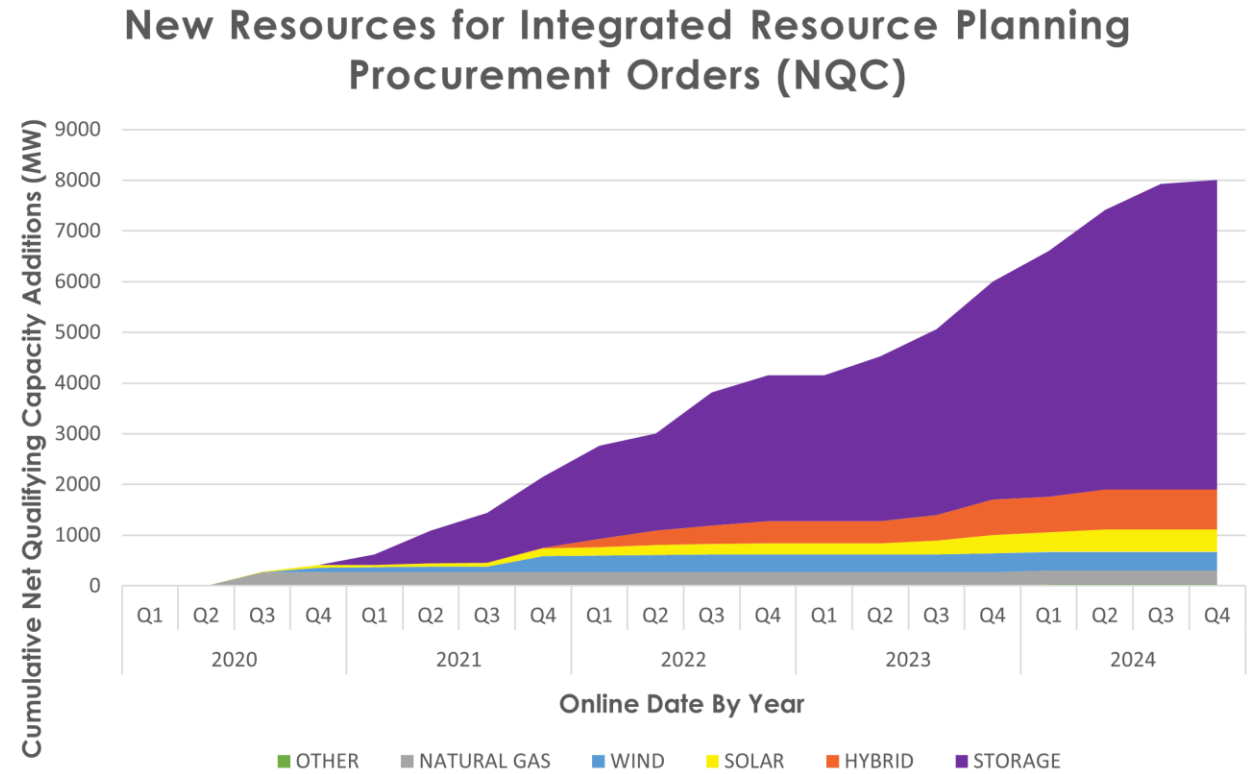
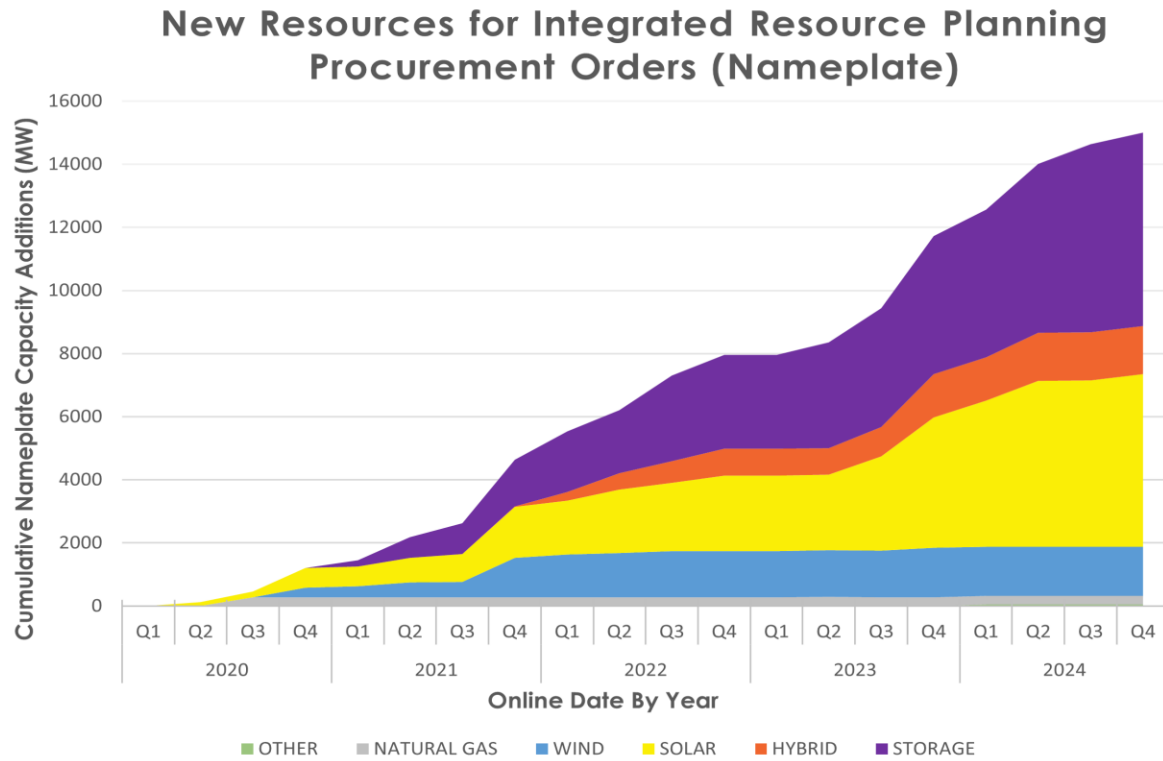
- Installed to date:** Over 10,000 MW of storage nameplate capacity is online serving the grid as of November 2024, including imports.
  - Includes ~150 MW of storage added prior to 2020
  - Includes standalone battery storage and the storage component of hybrid resources
- Expected future installs:** ~15,000 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

Data includes projects online as of December 9, 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 November 2024

Resource Type	Q4 2024	2025	2026	2027	2028	Total
<b>Solar</b>	251	1,047	1,335	320	0	<b>2,952</b>
<b>Battery Storage</b>	839	3,692	2,473	4,198	690	<b>11,892</b>
<b>Paired/Hybrid</b>	88	1,005	907	1,089	70	<b>3,158</b>
<b>Wind</b>	0	71	1,435	250	0	<b>1,756</b>
<b>Geothermal</b>	0	18	112	73	297	<b>499</b>
<b>Biomass/Biogas</b>	5	11	0	0	0	<b>16</b>
<b>Totals</b>	<b>1,182</b>	<b>5,843</b>	<b>6,262</b>	<b>5,930</b>	<b>1,057</b>	<b>20,274</b>

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

# New MWs Expected - NQC

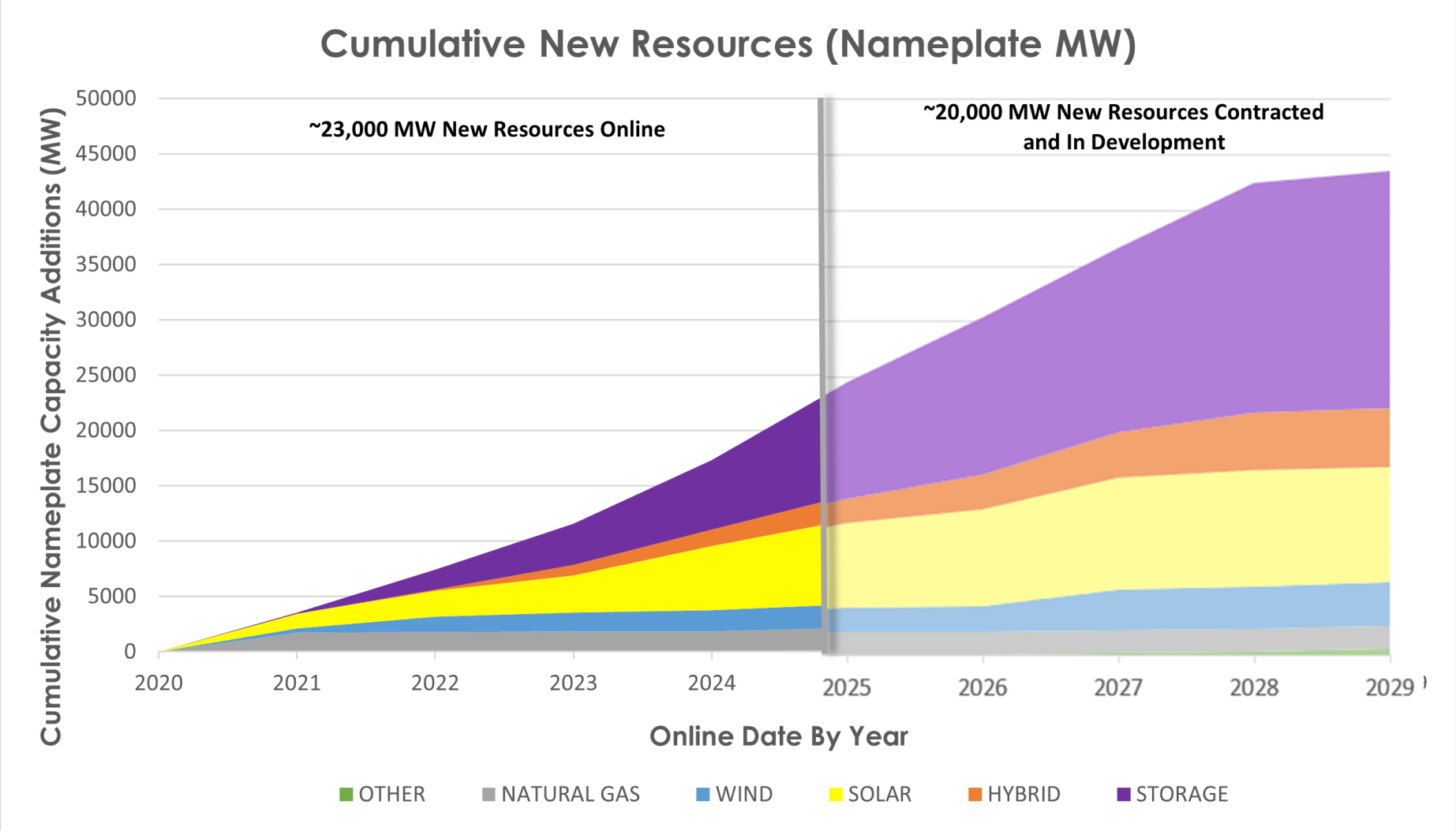
## By Year and Resource Type, including imports

Data includes projects expected/under contract as of November 2024

Resource Type	Q4 2024	2025	2026	2027	2028	Total
<b>Solar</b>	88	666	209	150	0	<b>1,113</b>
<b>Battery Storage</b>	679	3,308	2,318	3,827	643	<b>10,775</b>
<b>Paired/Hybrid</b>	76	504	585	719	33	<b>1,918</b>
<b>Wind</b>	0	16	398	84	0	<b>498</b>
<b>Geothermal</b>	0	16	107	68	293	<b>484</b>
<b>Biomass/Biogas</b>	5	11	0	0	0	<b>16</b>
<b>Totals</b>	<b>849</b>	<b>4,521</b>	<b>3,616</b>	<b>4,849</b>	<b>969</b>	<b>14,804</b>

- 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 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 November 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](mailto:irpdatarequest@cpuc.ca.gov)