

20
25 | Q4

CLEAN POWER QUARTERLY

Market Report



Definitions

Advanced development: Projects not under construction, but with a PPA, firm equipment order, or moving forward with plans to be placed under utility ownership as of the end of the most recent quarter. For offshore wind, advanced development consists of projects that have secured offtake or have had successful bids in response to a state solicitation even if final offtake negotiations have not concluded.

Capacity: Project nameplate capacity. Unless otherwise stated, ACP reports capacity in MW-ac.

Clean power: For the purposes of this report, clean power includes land-based wind, offshore wind, utility-scale solar, and battery storage technology.

Decommissioned: Project is offline and is no longer delivering power to the grid on a permanent basis. Physical removal of equipment is not a requirement.

Duration: The amount of time, in hours, a battery can discharge its power capacity before depleting its energy capacity. For example, a 2 MW battery that has 4 MWh of energy capacity has a duration of 2 hours.

Full repowering: Full decommissioning of a utility-scale project. The original equipment is physically removed from the project site and replaced with new utility-scale equipment.

Inverter Loading Ratio (ILR): The ratio of installed DC capacity to the inverter's AC power rating. Also known as the DC-to-AC ratio.

Online: Project has reached commercial operation and is delivering electricity to the ultimate point of delivery.

Partial repowering, nacelle replacement: Complete replacement of a utility-scale wind turbine's nacelle, rotor, and blades. The tower and foundation are retained.

Partial repowering, major retrofit: Complete replacement of a utility-scale wind turbine's rotor and blades, along with the replacement of at least one major component within the nacelle, typically the gearbox or the generator.

Pipeline: Projects either under construction or in advanced development.

Repowered: Full or partial equipment replacement. Currently only wind repowering activity is tracked, but ACP will expand repowering activity tracked as the market progresses.

Under construction: Construction team has begun work on the ground at the project site. For offshore wind, under construction is defined as in-ocean construction.

Acronyms

AC	Alternating Current
C&I	Commercial & Industrial
CAISO	California ISO
DC	Direct Current
ERCOT	Electric Reliability Council of Texas
GW	Gigawatts
GWh	Gigawatt hours
ILR	Inverter Loading Ratio
IOU	Investor-Owned Utility
ISO	Independent System Operator
MISO	Midcontinent Independent System Operator
MW	Megawatts
MWh	Megawatt hours
NE-ISO	New England ISO
NYISO	New York ISO
OEM	Original Equipment Manufacturer
PJM	Pennsylvania-New Jersey-Maryland Interconnection
PPA	Power Purchase Agreement
RTO	Regional Transmission Organizations
SPP	Southwest Power Pool



Key Takeaways

KEY TAKEAWAYS

2025 Q4 Highlights

U.S. developers deployed 18.6 GW of clean power in Q4 2025

- Developers commissioned 18,648 MW of new utility-scale solar, wind, and storage capacity in Q4 2025, down 3% from same quarter in 2024.

Annual installations surpassed 50 GW for the first time in 2025

- Total 2025 clean power capacity additions totaled 50,344 MW, accounting for over 90% of new capacity and bringing total operational clean power to 363,301 MW.
- The battery storage industry saw its best year yet for deployments after adding 16,175 MW/46,520 MWh of new capacity in 2025, surpassing the previous annual deployment record set in 2024 by 41%.

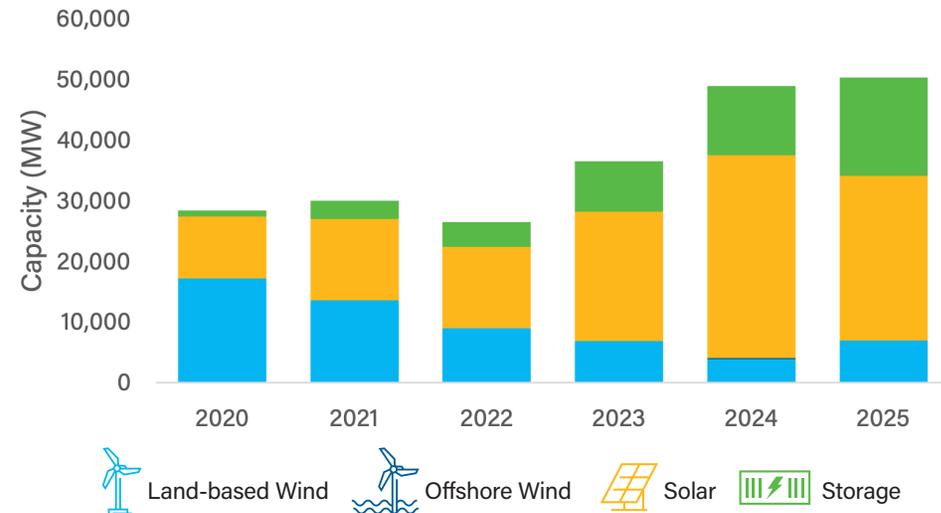
Pipeline rose 1% q-o-q, continuing year's trend of slow growth

- The clean power pipeline rose to 187,514 MW in Q4, up just 1% from Q3, and up 8% year-over-year.
- The second and third quarters of 2025 also saw pipeline growth of 1% or less, down from averaging 5% quarterly growth over 2021-2024.

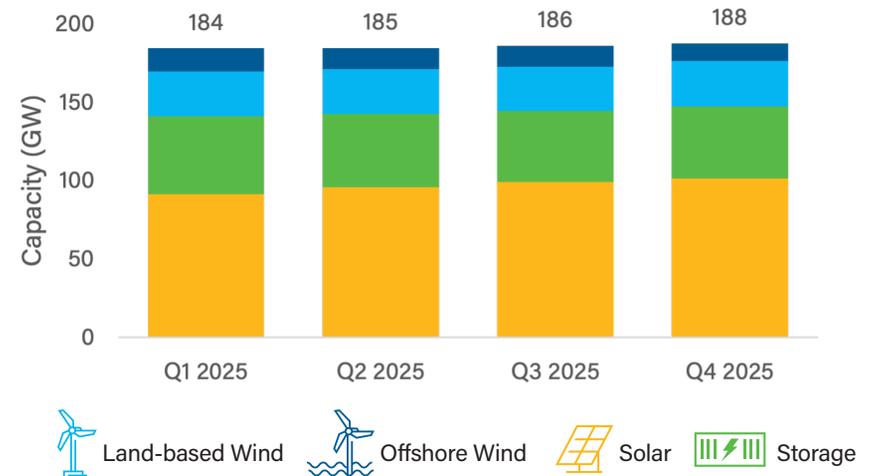
Clean power procurement fell 36% in 2025 compared to 2024

- Clean power offtake announcements dropped 36% year-over-year, as policy uncertainty and fluctuating tariffs made future project costs more difficult to predict and contract negotiations more complex.
- Power purchase agreement announcements saw the steepest drop by volume, falling from 45.4 GW in 2024 to 33 GW in 2025. Utilities and C&I buyers alike saw lower announced offtake volumes, down 26% and 36%, respectively.
- The drop in offtake in 2025 could be an early warning sign of lower deployments towards the end of the decade, just as a supportive policy and market environment in the early 2020s put 2024 and 2025 on track to be strong deployment years.

Annual Clean Power Capacity Additions Over Time



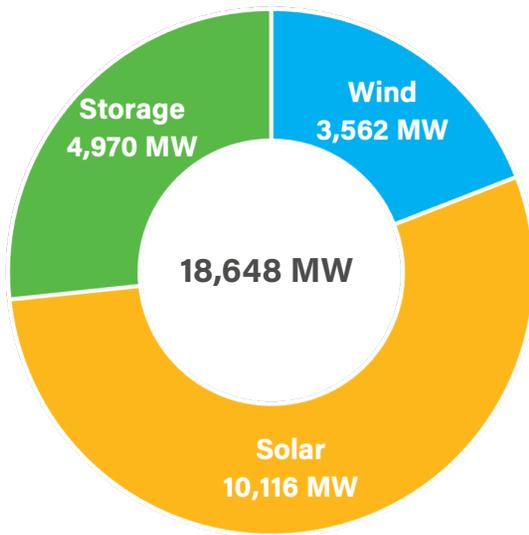
Clean Power Pipeline Growth Slows



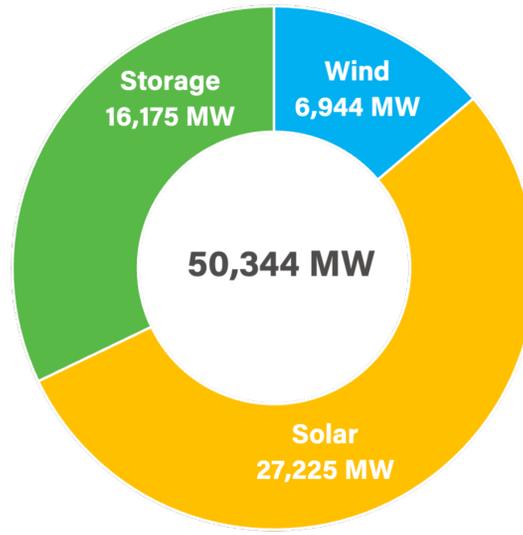
Q4 2025 Clean Power Capacity Additions

- Project developers commissioned 239 utility-scale solar, battery storage, and wind projects in the fourth quarter of 2025, adding 18,648 MW of clean power capacity to the grid.
- Clean power additions in Q4 2025 were 3% lower than the 19,254 MW installed in Q4 2024, but strong Q2 and Q3 deployment volumes led to an overall 3% increase year-over-year in full-year deployments for 2025.
- The industry brought online over 10 GW of new utility-scale solar capacity in Q4, representing 54% of quarterly clean power additions. Energy storage capacity additions accounted for 27% of quarterly additions at 5 GW, increasing the total storage capacity online by 6%, while land-based wind provided 19% of new clean power capacity added.
- As of Q4 2025, the U.S. had 363,301 MW of clean power capacity in operation, enough to power over 79 million American homes.

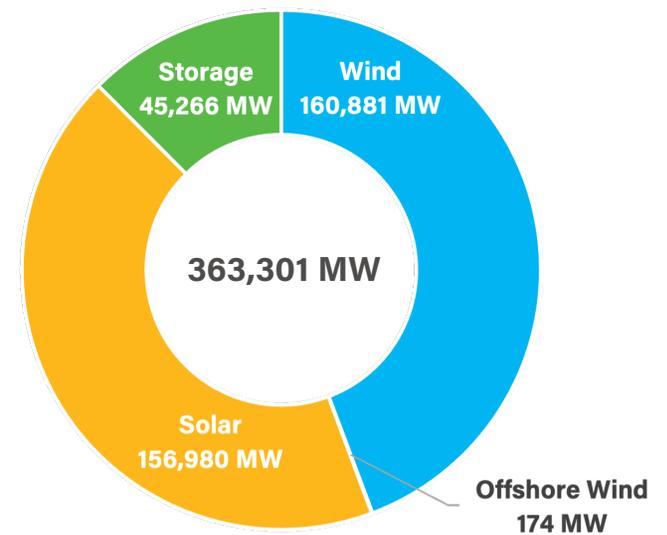
Q4 2025 Clean Power Installs by Technology



2025 Clean Power Installs by Technology

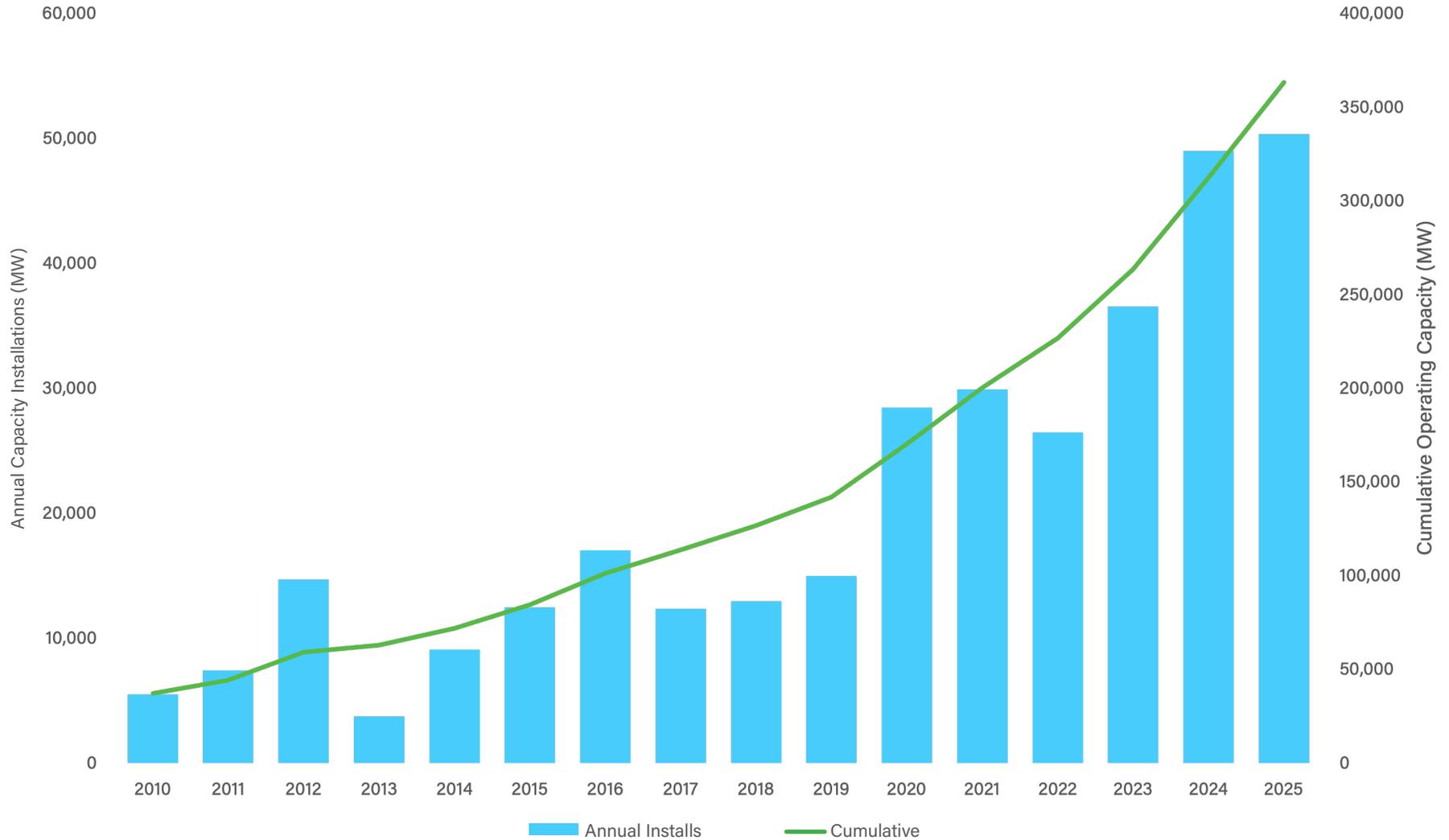


Total Operating Clean Power Capacity by Technology



U.S. Clean Power Deployments Reach 363 GW

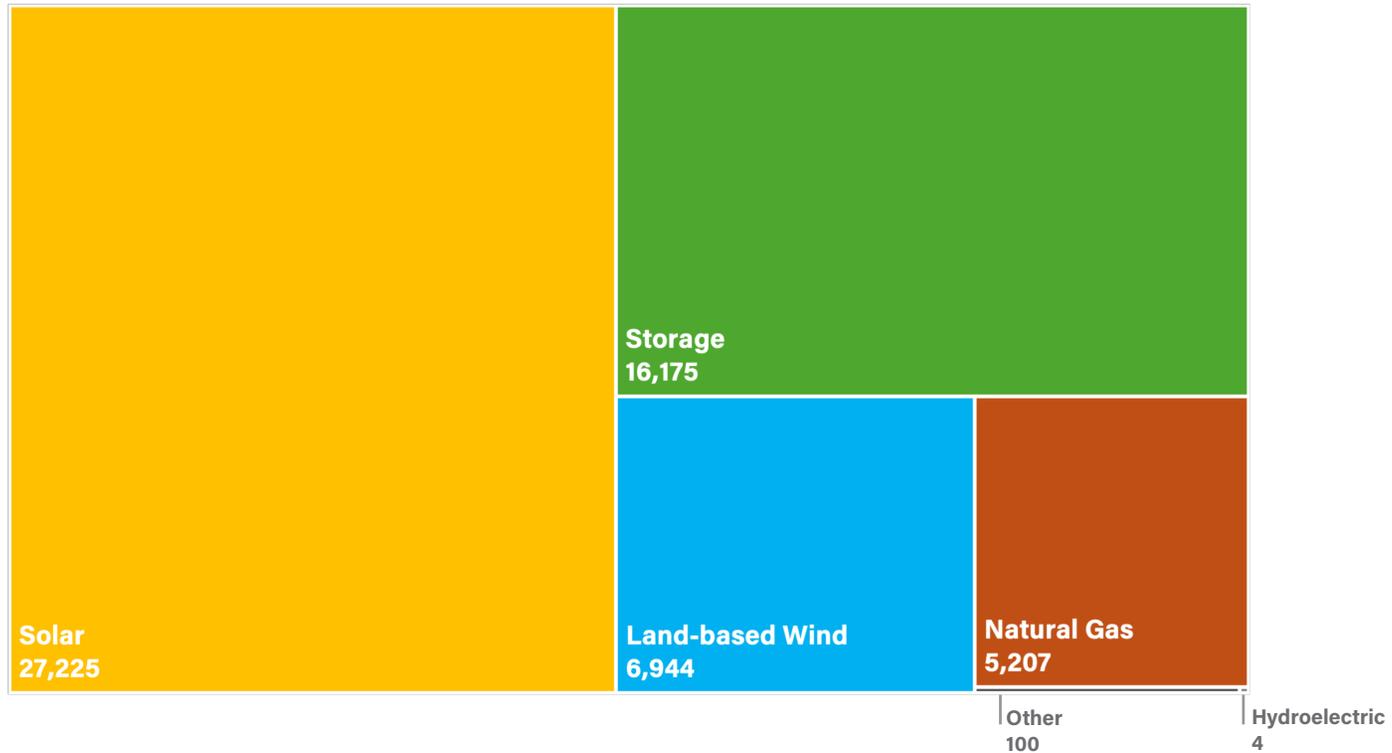
U.S. Annual and Cumulative Clean Power Capacity Growth



2025 Power Capacity Additions

- Solar, storage, and wind projects accounted for just over 90% of all new power capacity added to the U.S. power grid in 2025. This is the second consecutive year where these three technologies have delivered over 90% of new capacity.
- Solar delivered nearly half of new power capacity in 2025 at 49%, with storage contributing 29% and land-based wind accounting for 13%.
- Clean power has provided 82% of all new capacity added to the grid over the last five years (2020-2024).
- The U.S. saw just over 5 GW of generator retirements in 2025, according to data from the EIA. This is down sharply from the nearly 9 GW retired in 2024.

2025 Power Capacity Installs by Technology (MW)

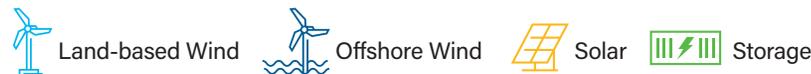
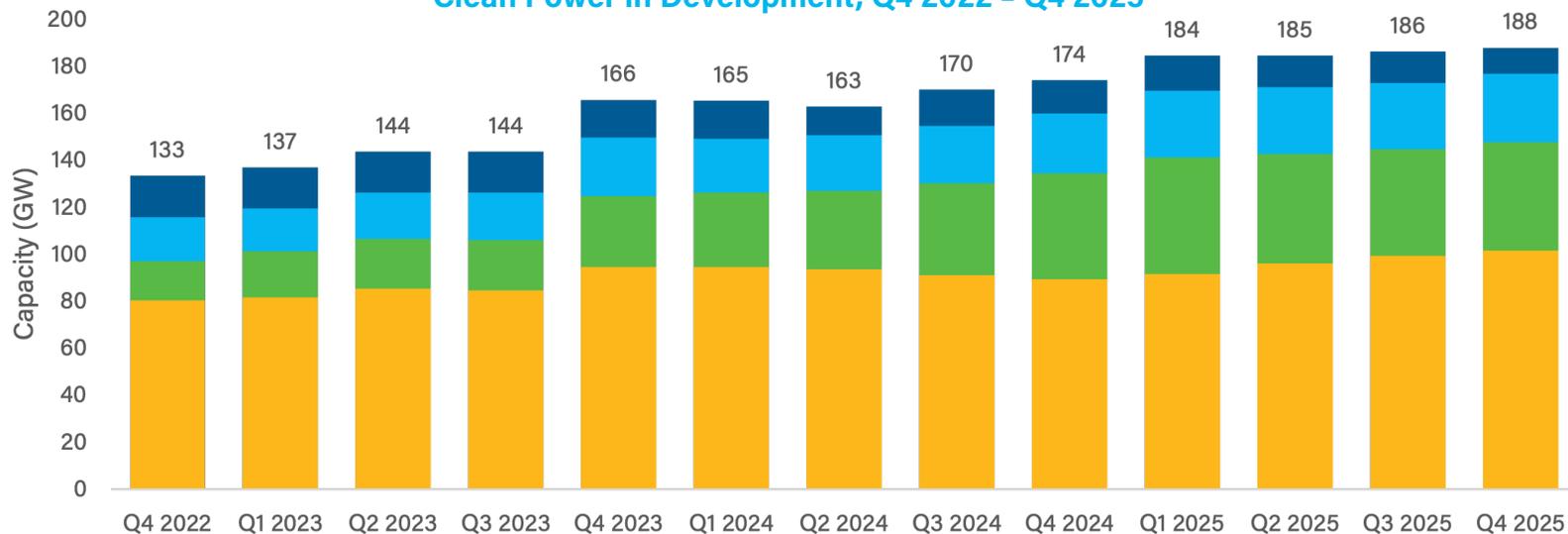


Source: ACP, EIA

Clean Power Pipeline Over Time

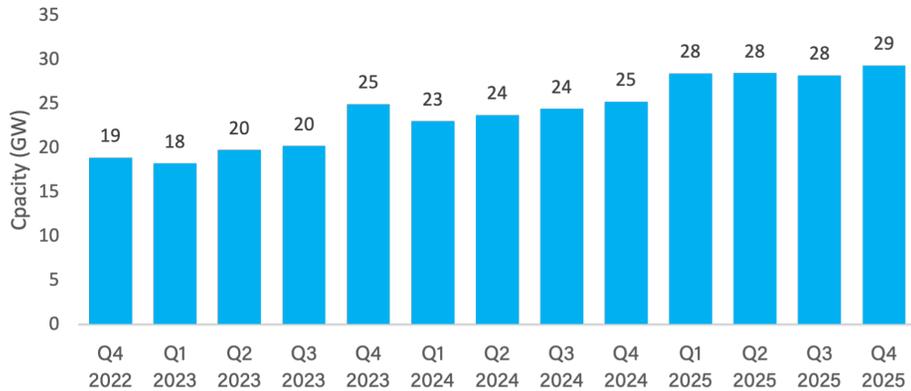
- The clean power pipeline rose to 187,842 MW by the end of Q4 2025, expanding less than 1% from the previous quarter. Year-over-year, the pipeline expanded 8%, up nearly 14 GW from Q4 2024.
- Although quarter-over-quarter growth has experienced plateaus and dips, the pipeline maintained an average quarterly growth rate of 2% over the past two years. Battery storage was a primary driver of the pipeline’s steady rise, increasing 10% on average over the past two years. During the same period, the solar and land-based wind pipelines also grew steadily, at 2% and 4%, respectively.
- By technology, utility-scale solar continued to make up the largest share of the pipeline at 54%, with over 101 GW of capacity in the pipeline. All fifty states in the U.S. have at least 1 MW of solar capacity under construction or in advanced development.
- Battery storage made up the second largest share of the pipeline with 25% and continued to experience the strongest growth among all technologies, rising 16% year-over-year. Battery storage ended 2025 with over 46 GW of capacity under construction or in advanced development, over 1.5 times larger than the technology’s pipeline capacity in Q4 2023.
- Land-based wind ended the year with nearly 30 GW of capacity in the pipeline, up 15% from Q4 2024. Land-based wind has also had consistent growth quarter-over-quarter. Over a two-year period, land-based wind had the second strongest quarterly growth rate (4%) among all technologies, and over a one-year period, it had the strongest quarterly growth rate (4%).
- Finally, the offshore wind pipeline has contracted by an average of 4% each quarter over the last two years, as the industry weathers contract cancellations and unsuccessful solicitations.

Clean Power in Development, Q4 2022 - Q4 2025

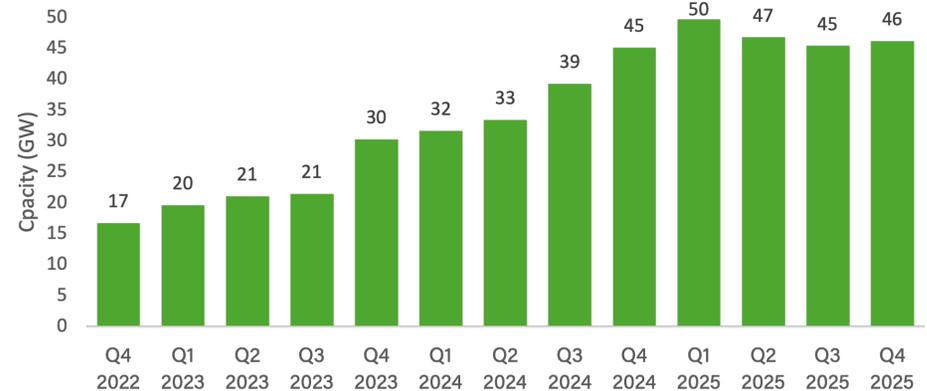


Quarterly Pipeline Growth Over Time

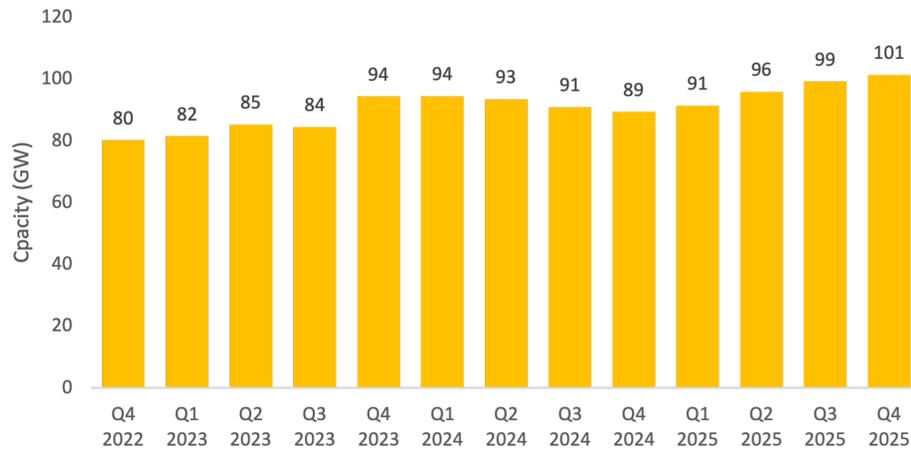
Land-Based Wind Pipeline, Q4 2022 - Q4 2025



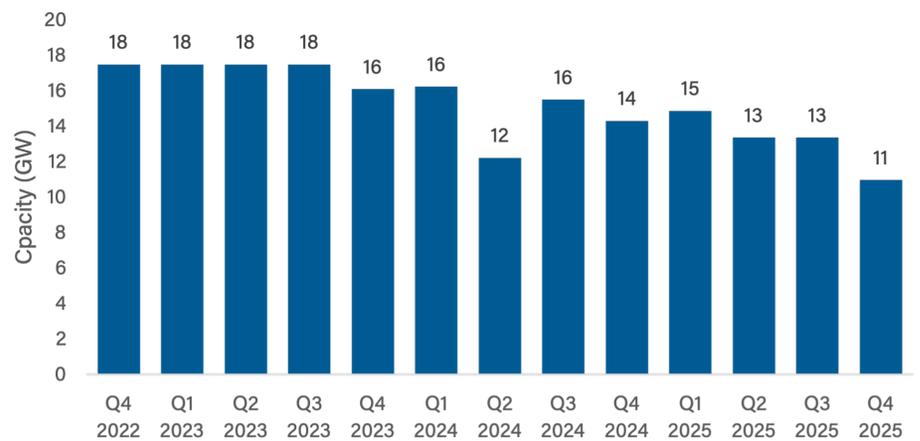
Battery Storage Pipeline, Q4 2022 - Q4 2025



Utility-Scale Solar Pipeline, Q4 2022 - Q4 2025



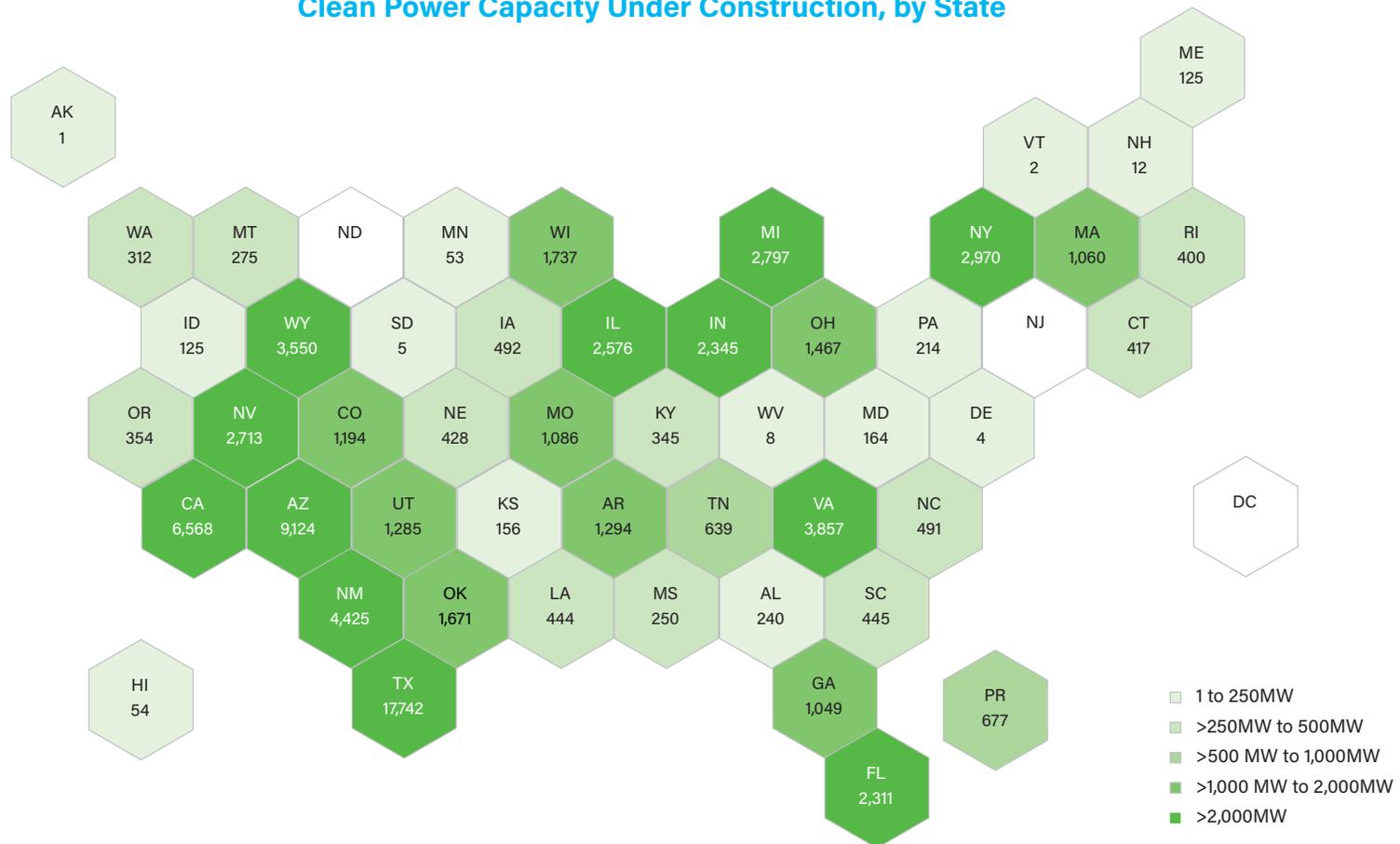
Offshore Wind Pipeline, Q4 2022 - Q4 2025



Clean Power Construction Activity

- At the end of 2025, developers reported 81,095 MW of clean power project capacity under construction. Project capacity in construction spanned 588 projects across 48 states and Puerto Rico. Twenty-one states had at least 1 GW of project capacity under construction.
- Texas, Arizona, and California remained the top three states for capacity under construction, each with over 5 GW. Texas held 17.7 GW of under construction capacity, accounting for 22% of the total construction pipeline.
- By technology under construction, Texas topped the rankings for solar (10.9 GW) and storage (5.6 GW), while Arizona took second for both (4.1 GW, 4.6 GW), and California third (2.8 GW, 3.6 GW).
- New Mexico overtook Wyoming for the most land-based wind under construction with 3.7 GW, while Virginia maintained its top spot for offshore wind under construction (2.6 GW).

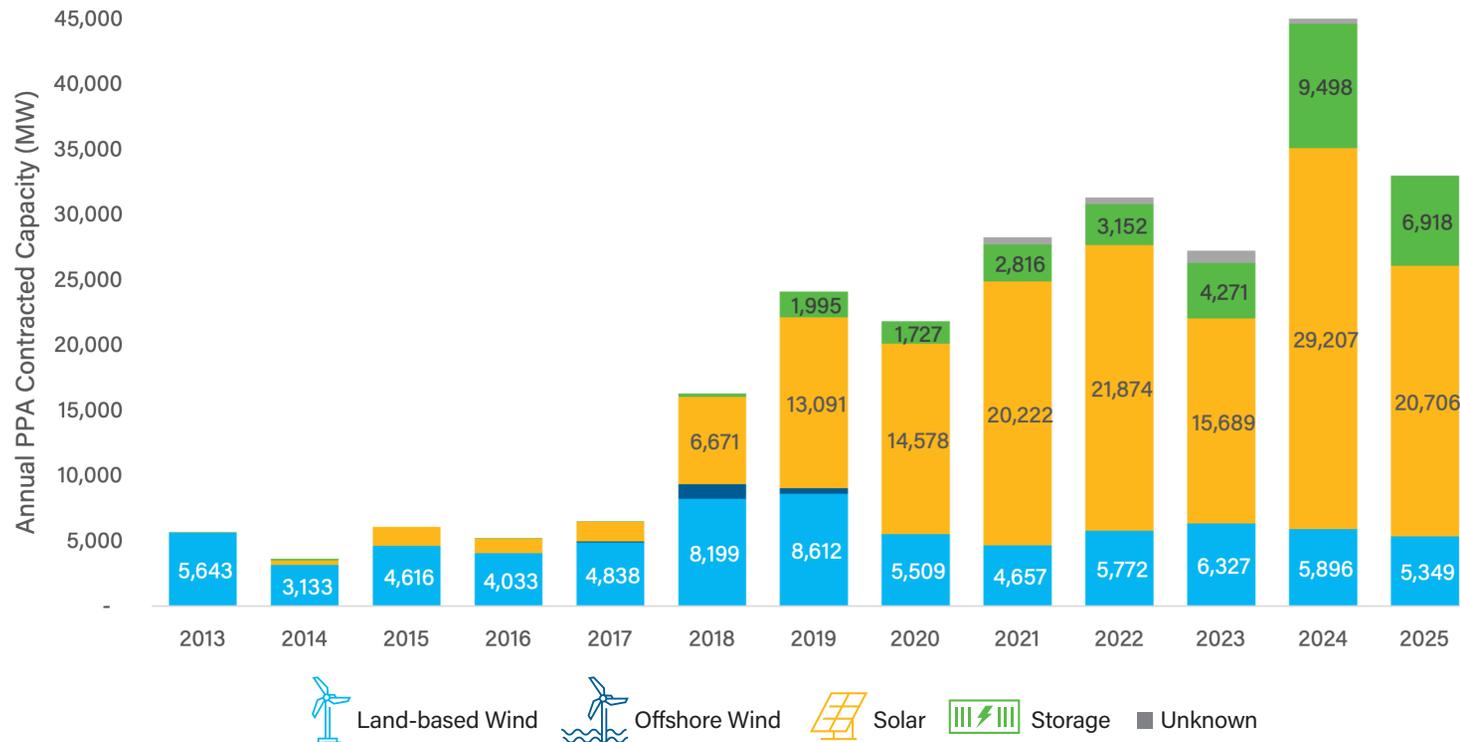
Clean Power Capacity Under Construction, by State



PPA Announcements by Technology

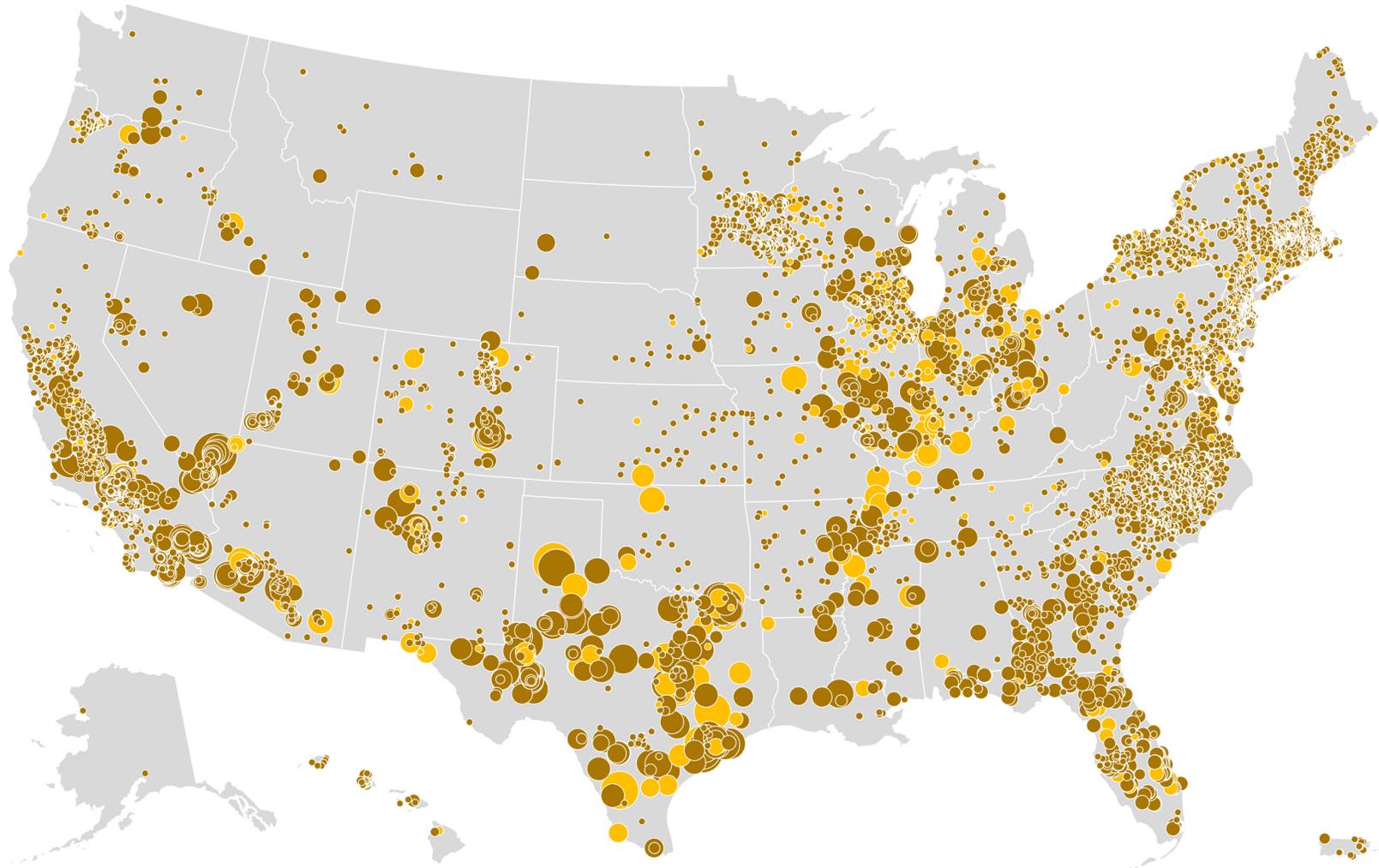
- By technology, solar was the dominant technology procured in Q4, making up 72% of all PPAs announced or executed during the quarter. Battery storage took a 20% share of Q4 2025 announcements while land-based wind was 8%.
- While solar and battery storage notched q-o-q increases of 134% and 115% respectively, land-based wind PPAs contracted by 62% during the same period. The recovery from solar and battery storage helped make 2025 the second-best year for PPA announcements after a record-breaking 2024.
- The largest solar and battery storage PPAs announced during the quarter went to EDF power solutions' Winston Energy project in Nevada. NV Energy will be the full offtaker for the 400 MW solar phase and 400 MW/1,600 MWh battery storage phase.
- For land-based wind, Scout Clean Energy executed the largest wind PPA of the quarter for its 252 MW Great Divide Wind project in New Mexico. The counterparty for the PPA was not disclosed.

Annual Clean Power Purchase Agreement Announcements, by Technology



UTILITY-SCALE SOLAR

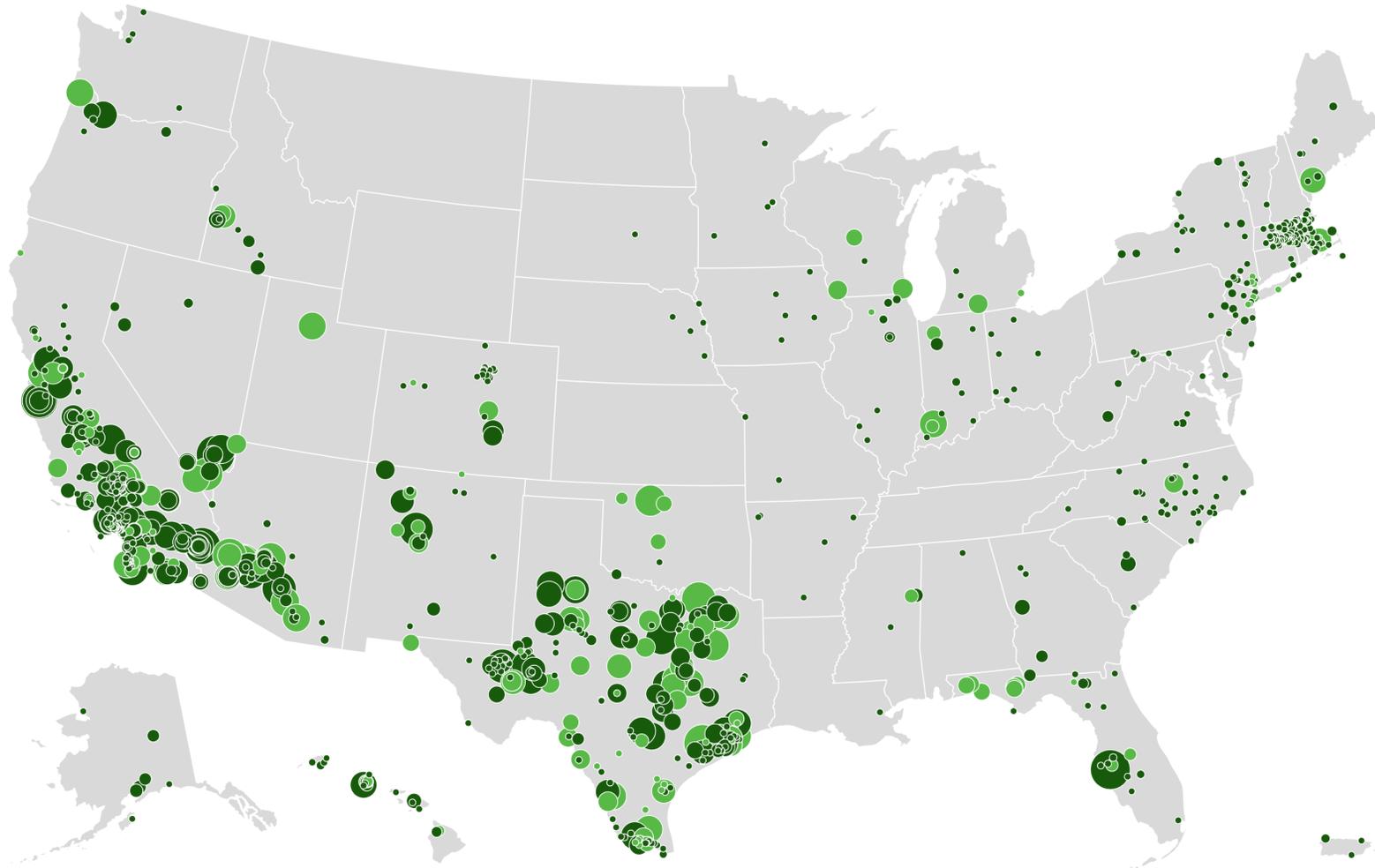
Geography of Utility-Scale Solar



- 50 MW
- 100 MW
- Online before 2025
- Online in 2025

Map details projects only where exact location information (latitude and longitude) is known

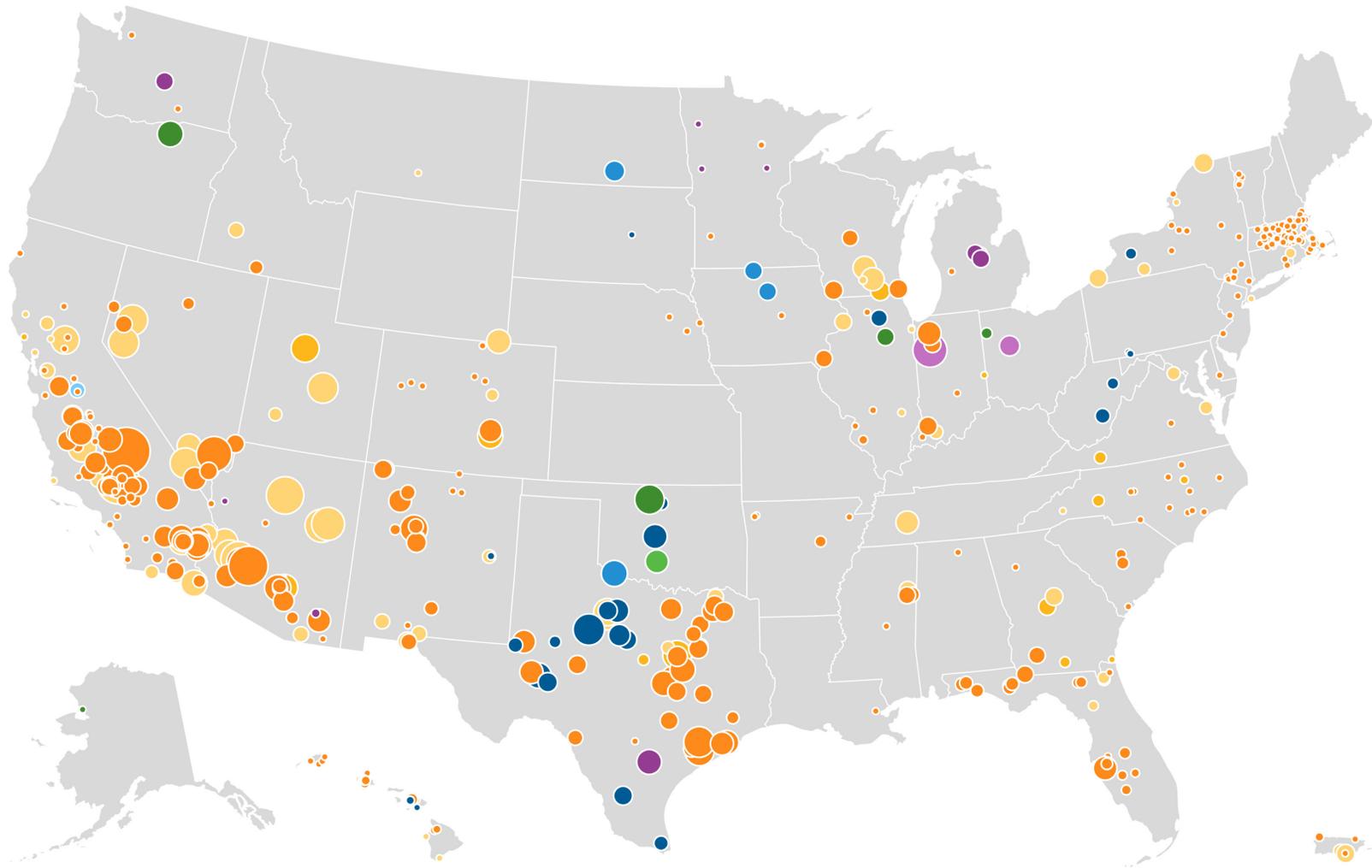
Geography of Energy Storage



- 45 MW
- 90 MW
- Online before 2025
- Online in 2025

Map details projects only where exact location information (latitude and longitude) is known

Geography of Hybrid Projects

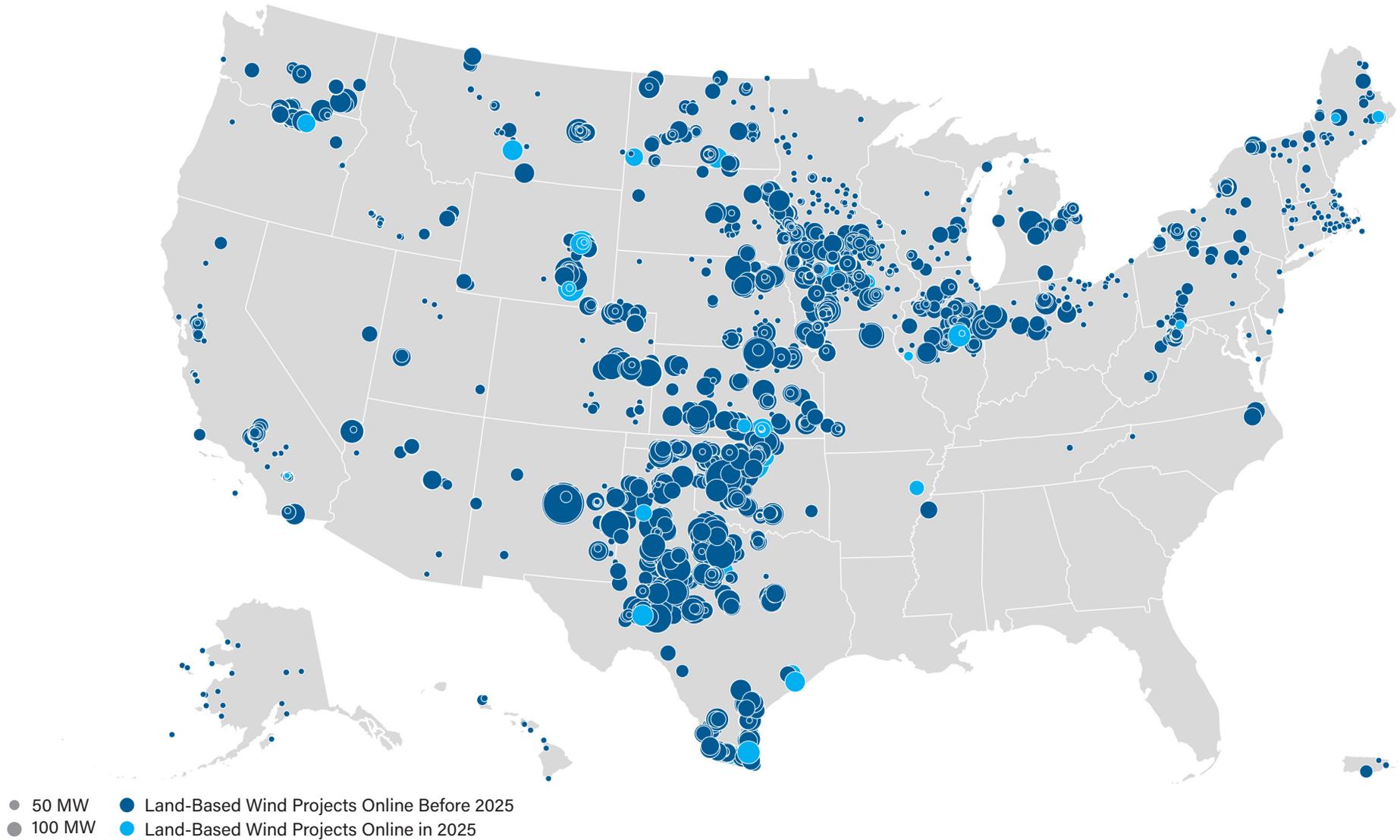


Capacity	Solar + Storage	Wind + Solar	Wind + Storage	Wind + Solar + Storage
● 50 MW	● Online	● Online	● Online	● Online
● 100 MW	● Partially Online	● Partially Online	● Partially Online	● Partially Online
	● Pipeline	● Pipeline	● Pipeline	● Pipeline

Note: The pipeline consists of projects fully in development and not yet operating phases of partially online projects. Map details projects only where exact location information (latitude and longitude) is known.

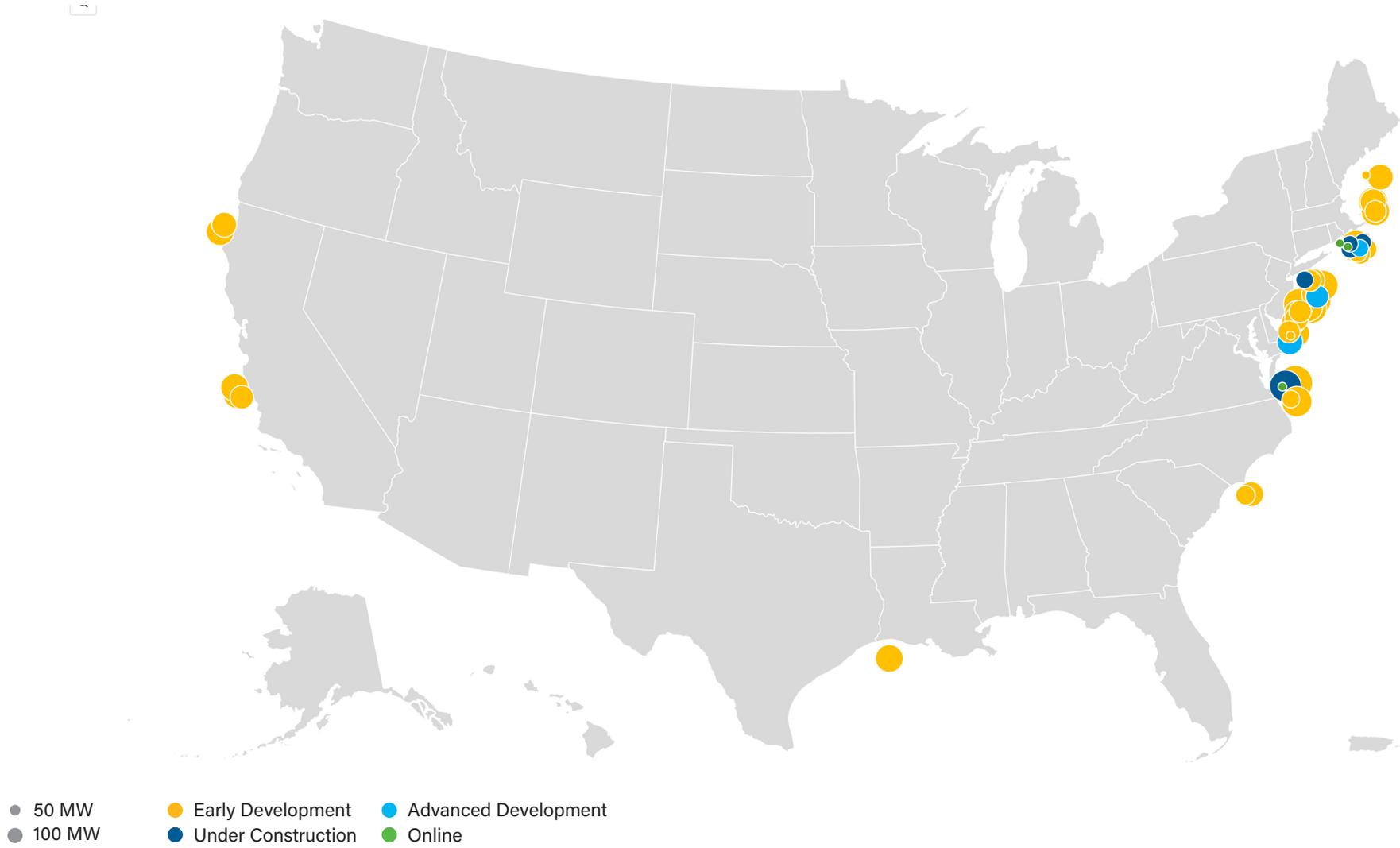
LAND-BASED WIND

Geography of Land-Based Wind



Geography of Offshore Wind

Offshore Wind Projects in Development



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