

A woman in a blue uniform and cap is working on a solar panel in a factory. She is wearing white gloves and using a tool to work on the panel. The background shows industrial equipment and another worker.

20
25 | Q3

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 |



2025 Q3 Highlights

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U.S. developers deployed 11.7 GW of clean power in Q3 2025

- Developers brought online 11,695 MW of utility-scale solar, storage, and land-based wind during the third quarter of 2025, ranking as the highest Q3 for clean energy installations on record.
- Battery storage developers also broke records during the quarter. With 4,686 MW installed, Q3 2025 is the strongest Q3 on record for battery storage installations and second-best quarter for the technology overall.

2025 installations set to surpass record-breaking 2024

- Year-to-date, 30.9 GW of clean energy capacity has been connected to the grid, up 1 GW from the current top year for clean power installations (2024), putting 2025 on track to be the strongest year on record. The strength of 2025 deployments is reflective of early 2020s market and policy conditions.
- Looking further ahead, the policy and regulatory environment has changed. Projects are facing heightened regulatory burdens and policy uncertainty, putting the future trajectory of clean power project deployments at risk.

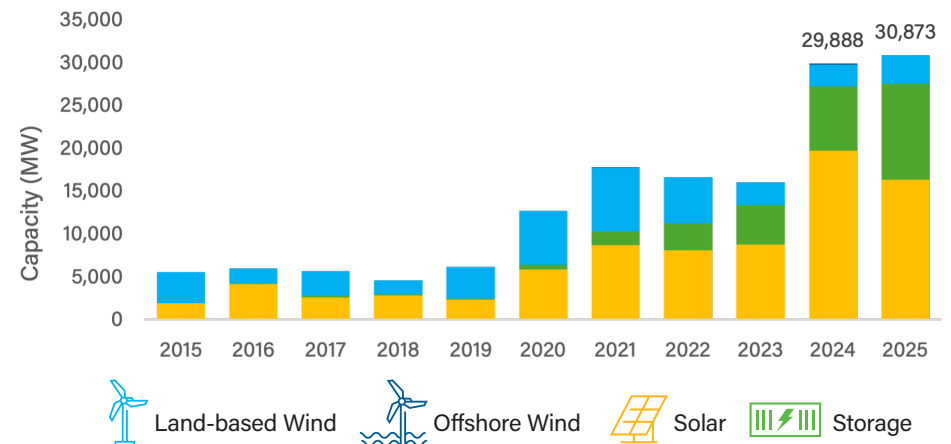
Clean energy offtake announcements down 38% YTD 2025

- In a key indicator of a possible future slowdown, offtake announcements during the first three quarters of 2025 were down 38% compared to the first three quarters of 2024. Quarter-over-quarter, power purchasing dropped 16% across all offtake mechanisms.

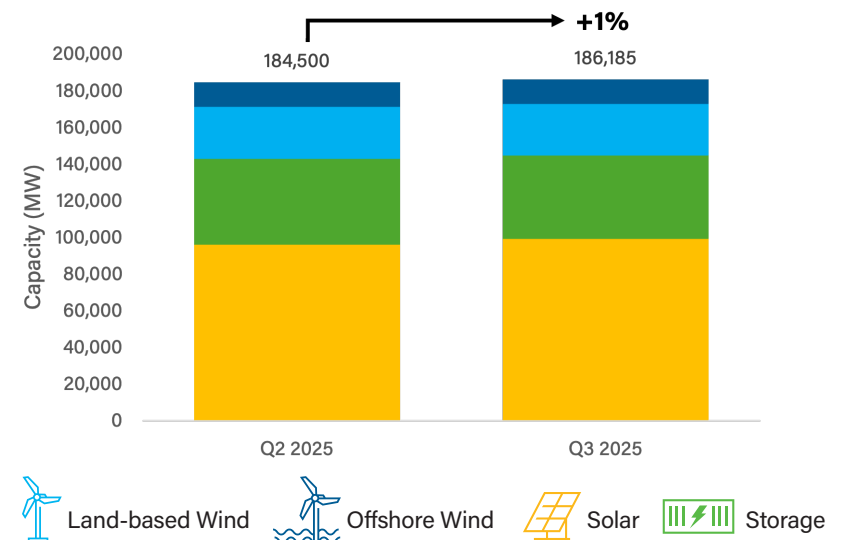
Pipeline sits at new high, but limited growth q-o-q

- The clean power pipeline reached a new high of 186,185 MW by the end of September 2025, growing 9% year-over-year. However, the pipeline expanded a mere 1% from the first quarter of 2025 as developers faced uncertainty for early-stage project development. In contrast, the first three quarters of 2024 added nearly 3 times as much clean power capacity to the pipeline than YTD 2025.
- At the pipeline's current level, 11 states host enough clean power capacity in their pipelines to more than double operational capacity over the next several years.

Annual Clean Power Capacity Installations for Q1-Q3 (9M)



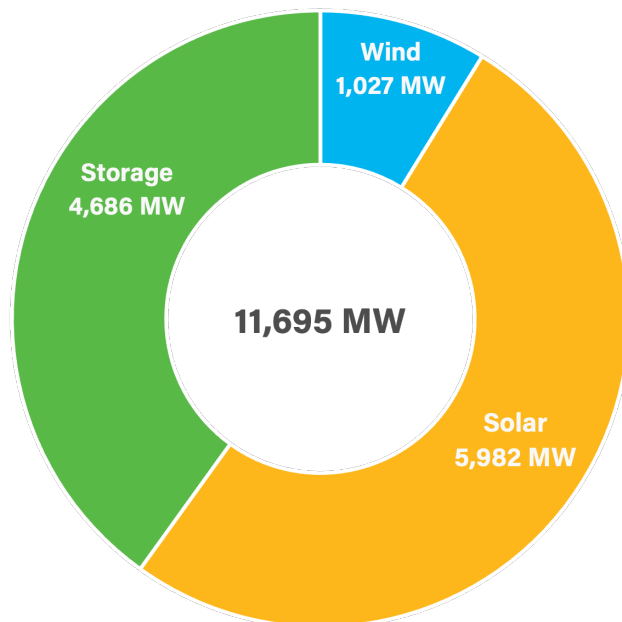
Clean Power Pipeline, Quarter-over-Quarter



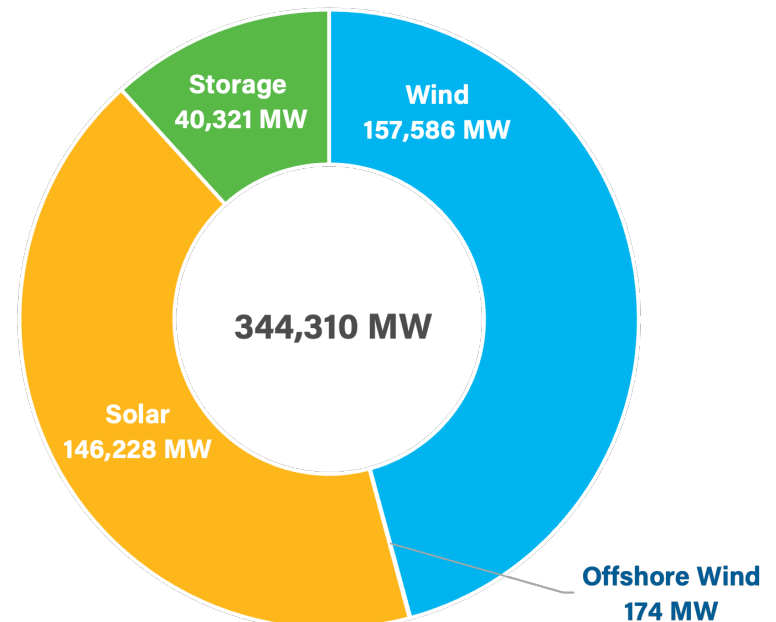
U.S. Clean Power Deployments Reach 344 GW

- Project developers commissioned 133 utility-scale solar, battery storage, and wind projects in the third quarter of 2025, adding 11,695 MW of clean power capacity to the grid.
- Clean power additions in Q3 2025 were 14% higher year-over-year from the 10,288 MW installed in Q3 2024. Total added capacity increased 3% year-over-year for the first three quarters of 2025.
- The industry brought online 6 GW of new utility-scale solar capacity in Q3, representing 51% of quarterly clean power additions. Energy storage capacity additions soared to 40% of quarterly additions at 4.7 GW, increasing the total storage capacity online by 12%, while land-based wind provided 9% of new clean power capacity added.
- As of Q3 2025, the U.S. had 344,310 MW of clean power capacity in operation, enough to power nearly 83 million American homes.

Q3 2025 Clean Power Installs by Technology



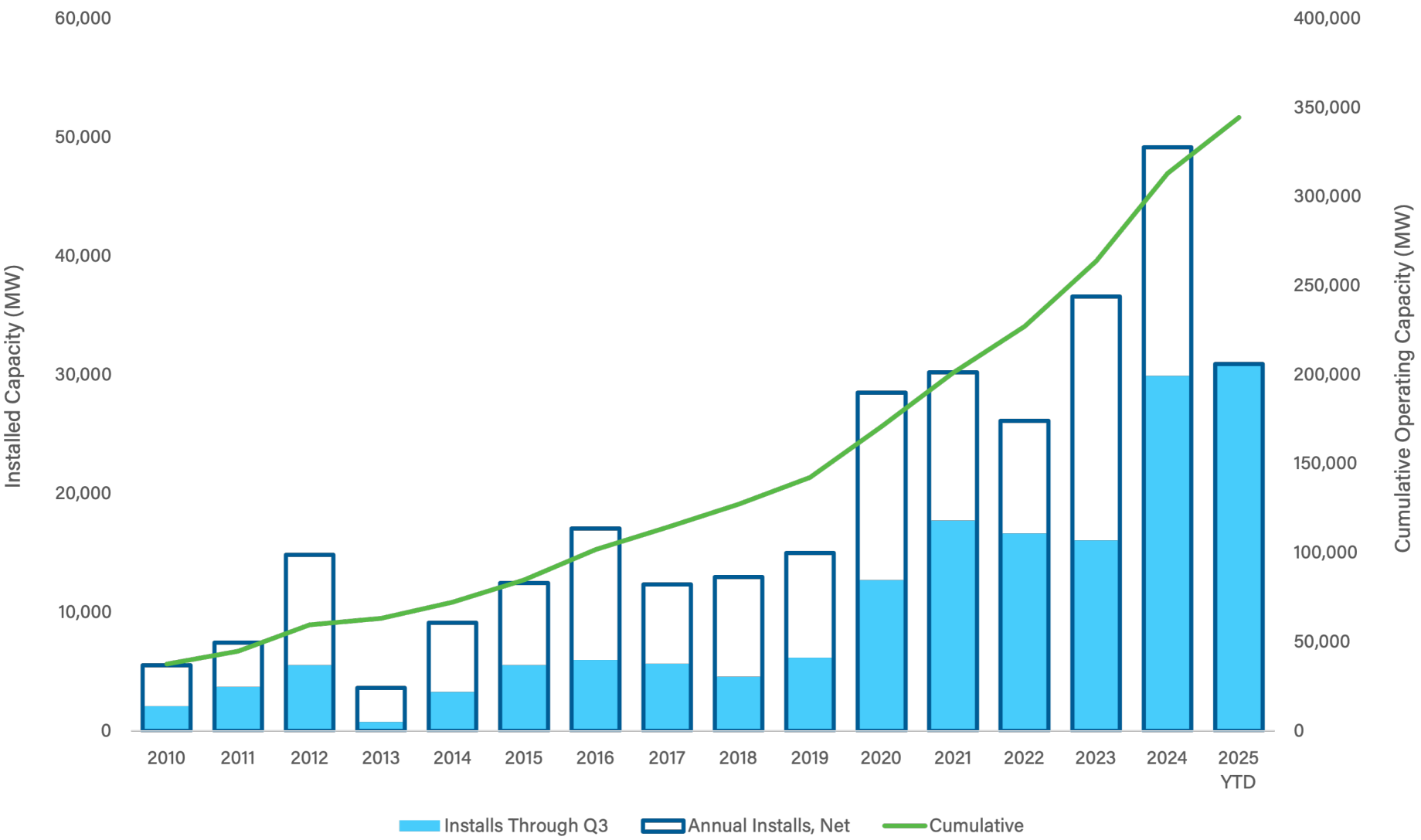
Total Operating Clean Power Capacity by Technology



CLEAN POWER CAPACITY GROWTH

U.S. Clean Power Deployments Reach 344 GW

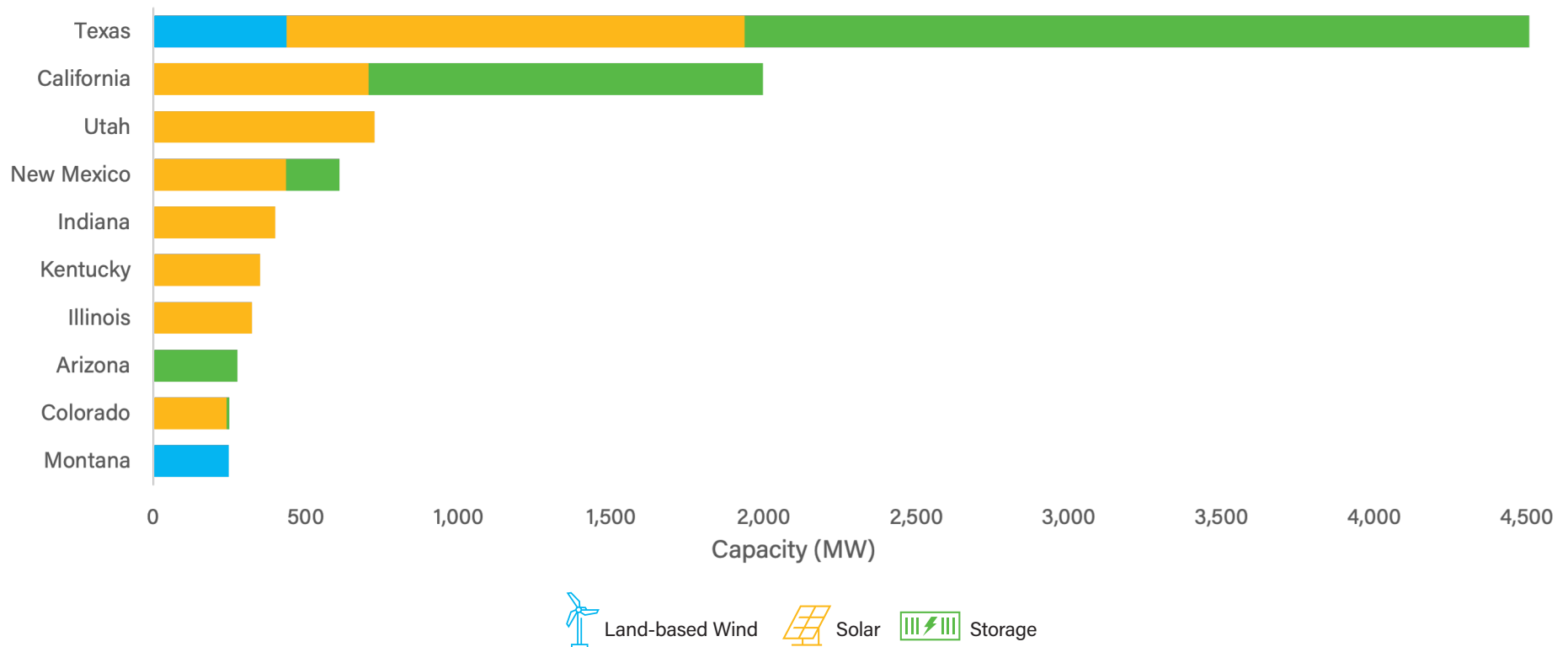
U.S. Annual and Cumulative Clean Power Capacity Growth



Top States for Q3 2025 Clean Power Capacity Additions

- Texas remained the top state for clean power additions in Q3 and accounted for 39% of added capacity in the U.S. during the quarter. Texas added 63% more clean power capacity in Q3 than in Q2, largely due to a significant increase in storage capacity.
- Just half of the top ten states from Q2 2025 remained on the list in Q3: Texas, California, Indiana, Illinois, and Arizona. The new states to the top ten in Q3 2025 list are Utah, New Mexico, Kentucky, Colorado, and Montana.
- Utah joined the top ten after adding 725 MW of new utility-scale solar capacity from two new solar projects (525 MW and 200 MW).
- The only states in the top ten to add wind capacity were Texas and Montana with 436 MW and 248 MW, respectively. The wind project in Montana was the only added clean power capacity in the state in Q3.
- Six of the top ten states for Q3 clean power additions voted for the Republican candidate in the most recent presidential election.

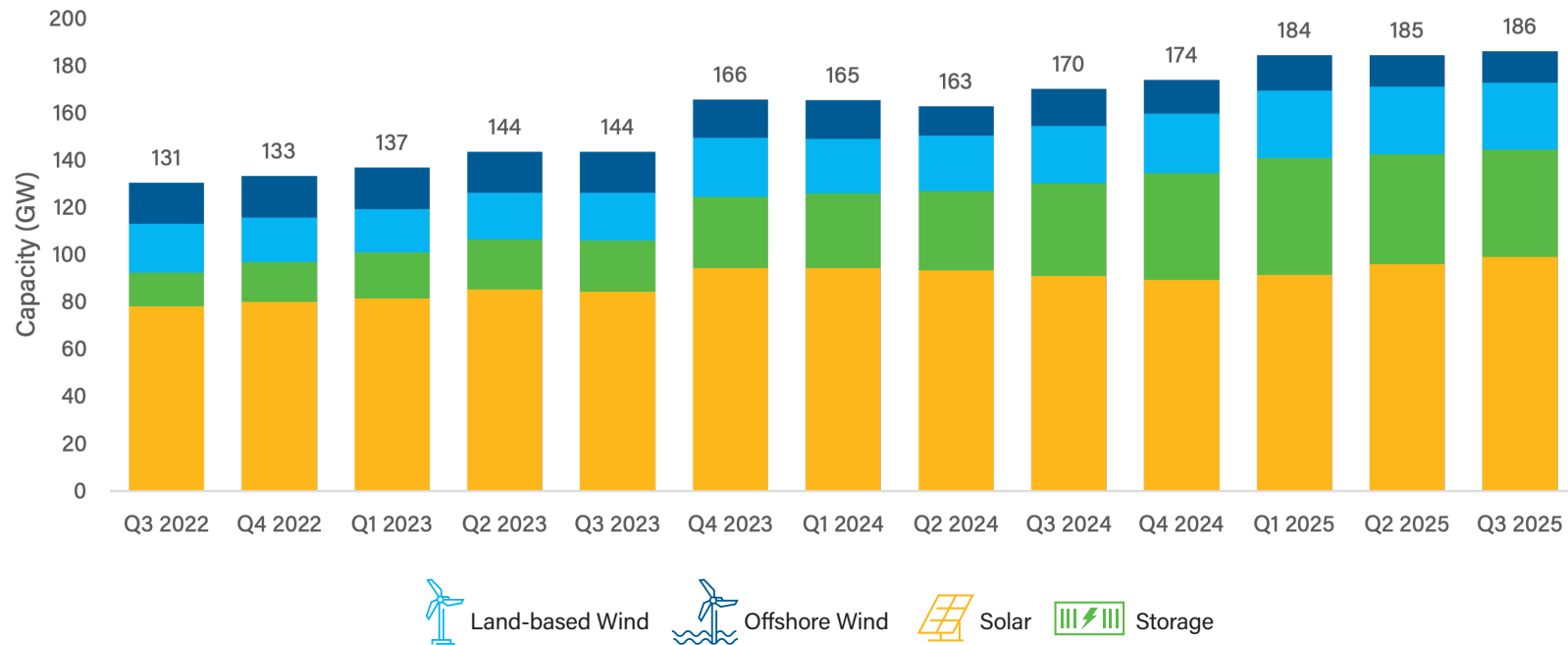
Top Ten States for Q3 2025 Clean Power Installations



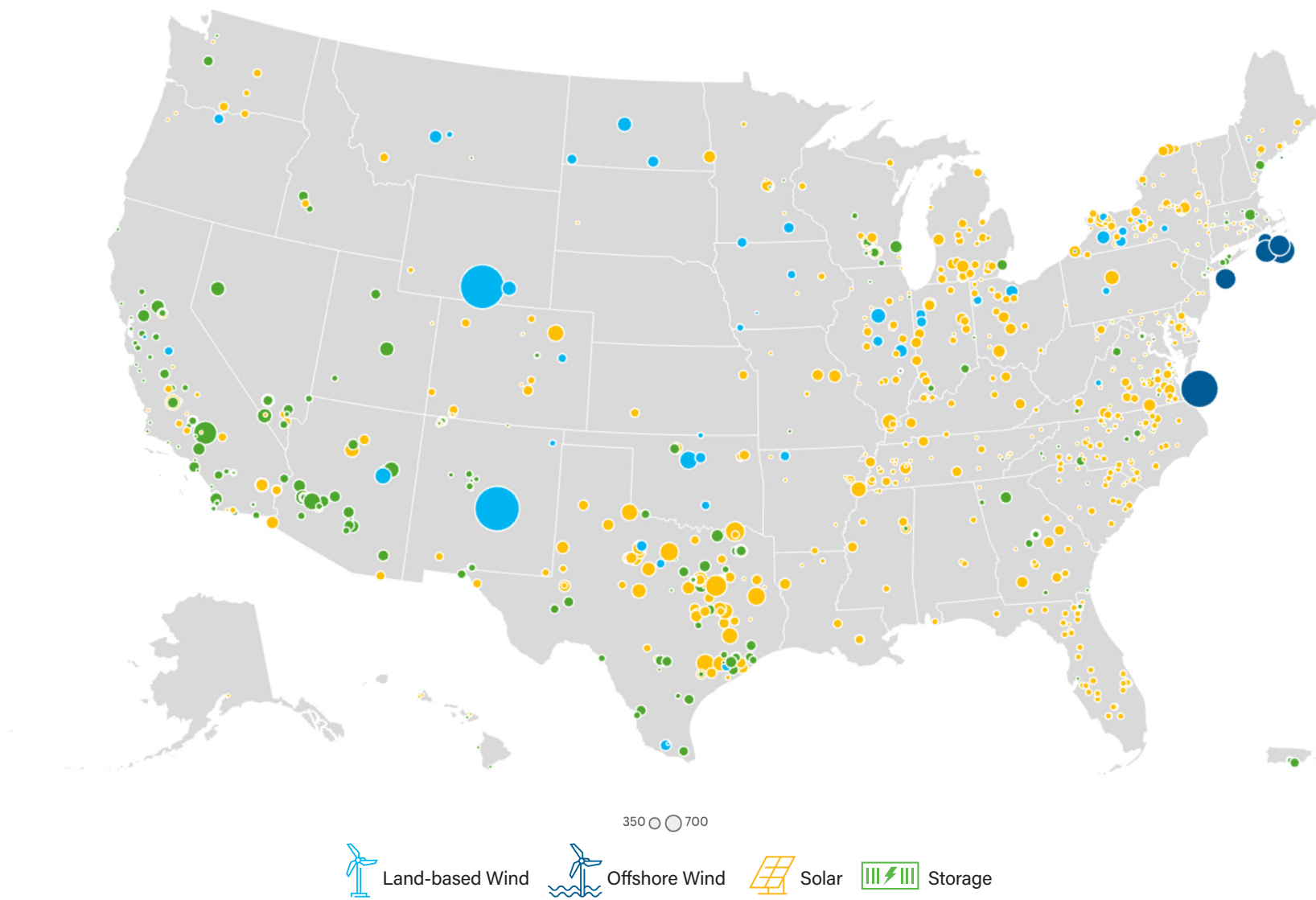
Clean Power Pipeline Over Time

- The pipeline for clean power projects hit 186,185 MW at the end of Q3 2025, rising less than 1% from the previous quarter. Over the last two years, pipeline capacity has grown at a quarterly rate of 3% on average.
- Year-over-year, the total clean power pipeline expanded by 9%. Steady growth in the pipeline has been primarily driven by battery storage and solar, which together accounted for 90% of pipeline growth over the past year.
- By technology, solar made up the largest share of the pipeline at 53% with nearly 100 GW of capacity under construction or in advanced development. The solar pipeline has grown at an average pace of 2% each quarter over the last two years.
- Battery storage remained the second largest share of the pipeline at 24% and has experienced the strongest growth amongst all technologies. With over 45 GW of capacity, the battery storage pipeline has more than doubled since Q3 2023. Though the storage pipeline contracted slightly over the past two quarters, the technology's average quarterly growth for the past two years was 11%.
- After dipping to a low of 18 GW in Q1 2023, the land-based wind pipeline has grown to exceed 28 GW at the end of Q3 2025. Over the past two years, the land-based wind pipeline has grown at an average of 5% each quarter; the second-largest quarterly growth rate by technology.
- Finally, offshore wind has contracted by an average of 2% each quarter over the last two years, as the industry weathers contract cancellations and unsuccessful solicitations.

Clean Power in Development, Q3 2022 – Q3 2025



Projects in the Pipeline



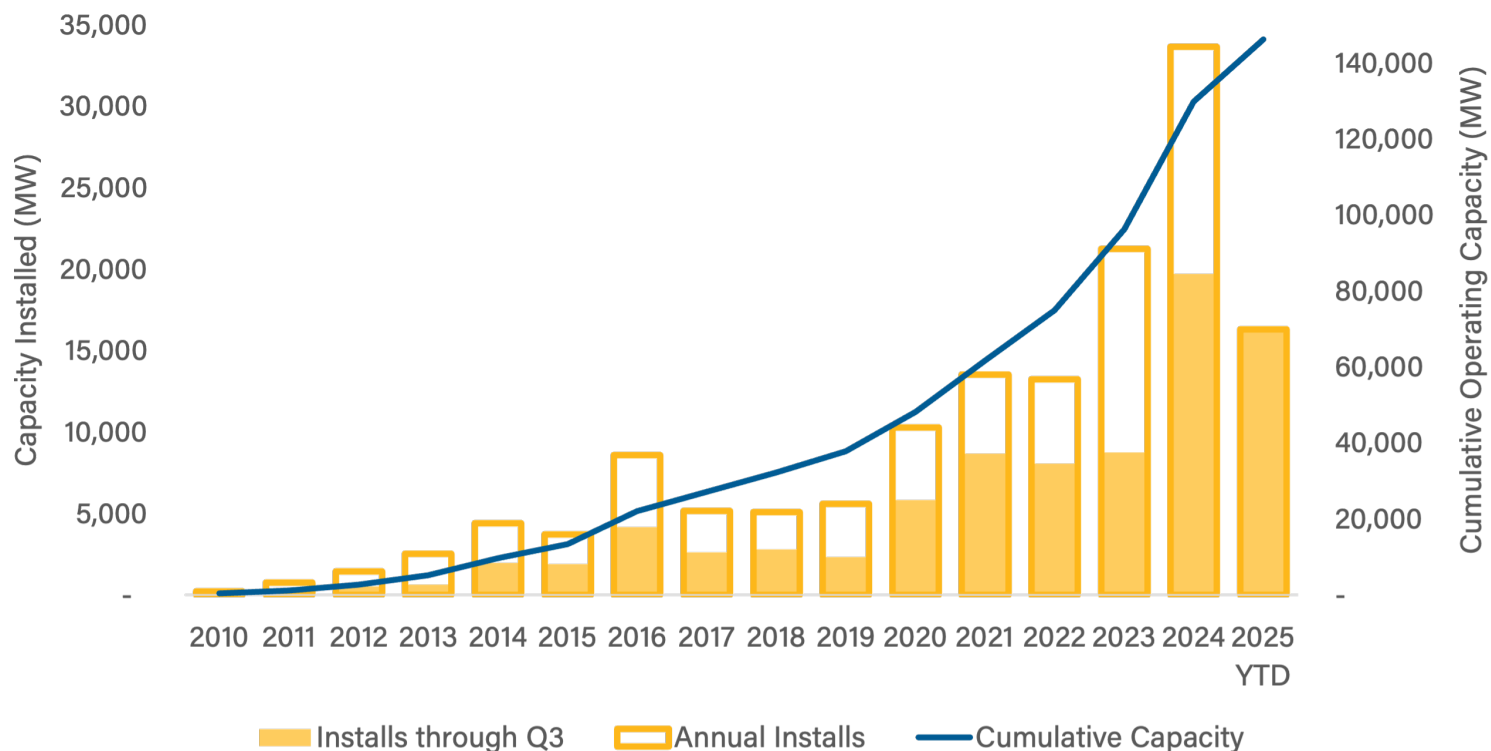
Map details projects only where exact location information (latitude and longitude) is known.

UTILITY-SCALE SOLAR

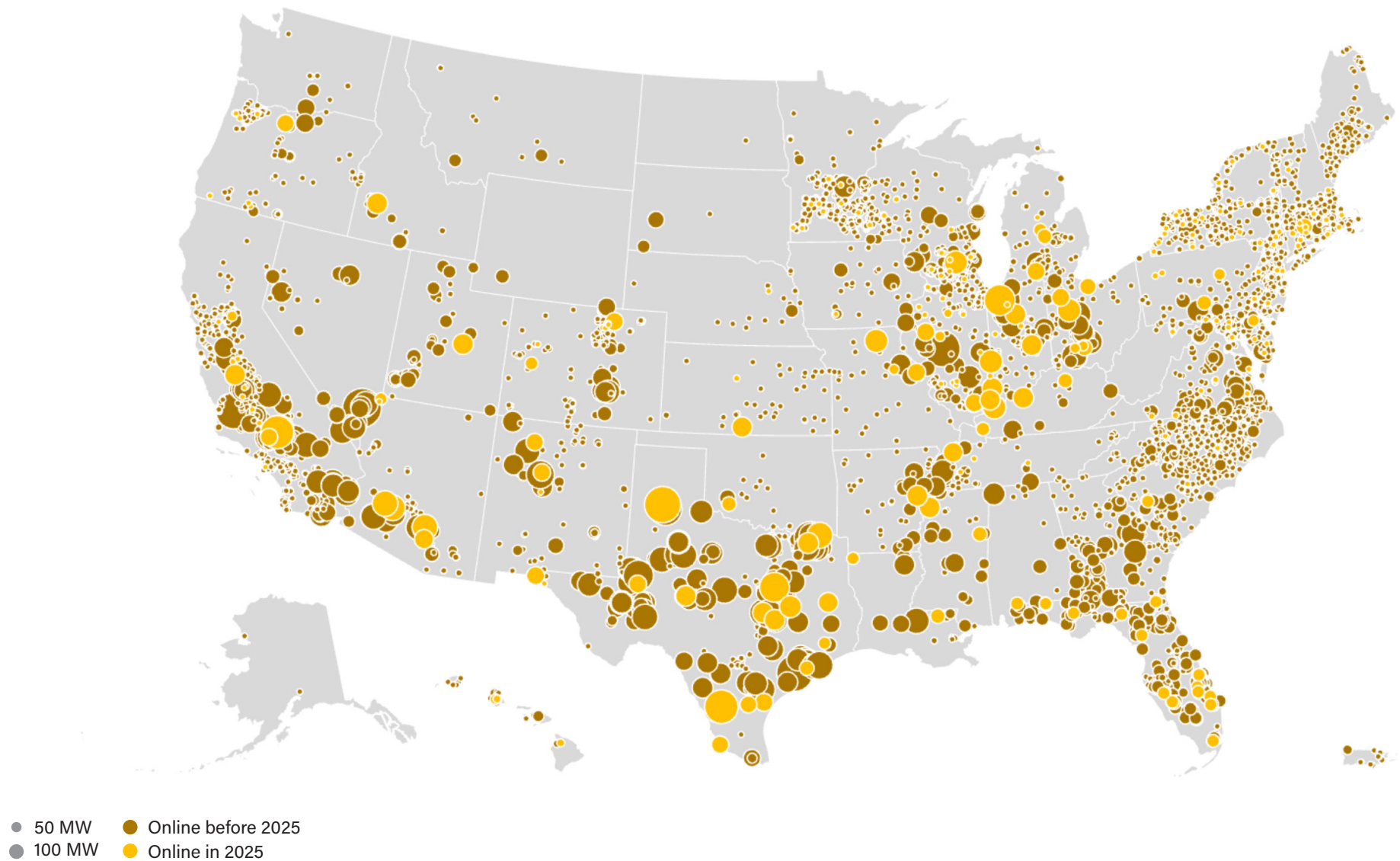
Q3 2025 Utility-Scale Solar Deployments

- Developers added 5,982 MW of utility-scale solar capacity to the grid in the third quarter of 2025. Quarterly solar capacity additions came in 4% higher than in previous quarter, but 5% lower than the third quarter in 2024.
- Excelsior Energy Capital's Faraday B Solar in Utah County, Utah, was the largest utility-scale solar project phase to come online in Q3 2025. The 525 MW project features 1.2 million solar panels and was completed in under two years.
- At the end of Q3 2025, the cumulative operational solar capacity in the U.S. reached 146,228 MW, delivering clean electricity to all 50 states, the District of Columbia, and Puerto Rico.
- Utility-scale solar has proven one of the most reliable options available to bring new electricity generation online at speed in recent years, with developers connecting more than 71 GW of new capacity since the start of 2023.

U.S. Annual and Cumulative Utility-Scale Solar Capacity Growth



Geography of Utility-Scale Solar



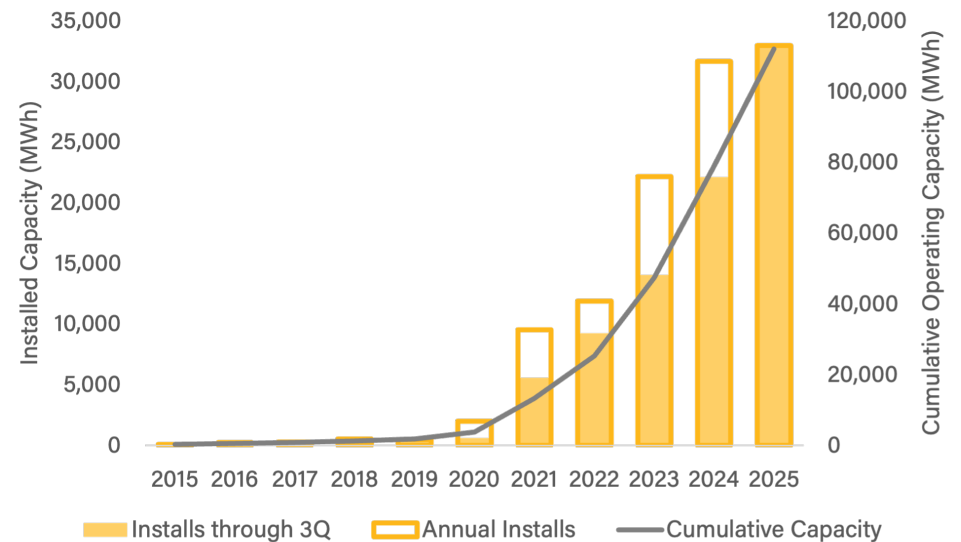
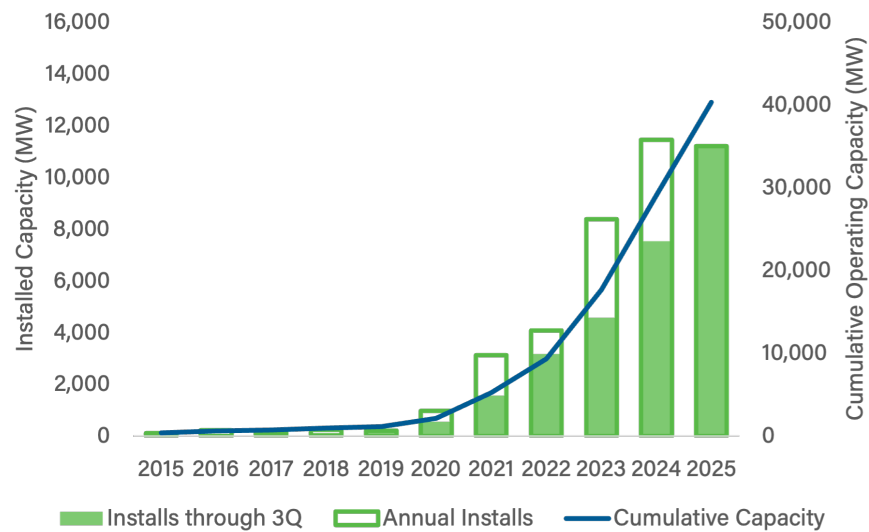
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UTILITY-SCALE ENERGY STORAGE

Q3 2025 Energy Storage Installations

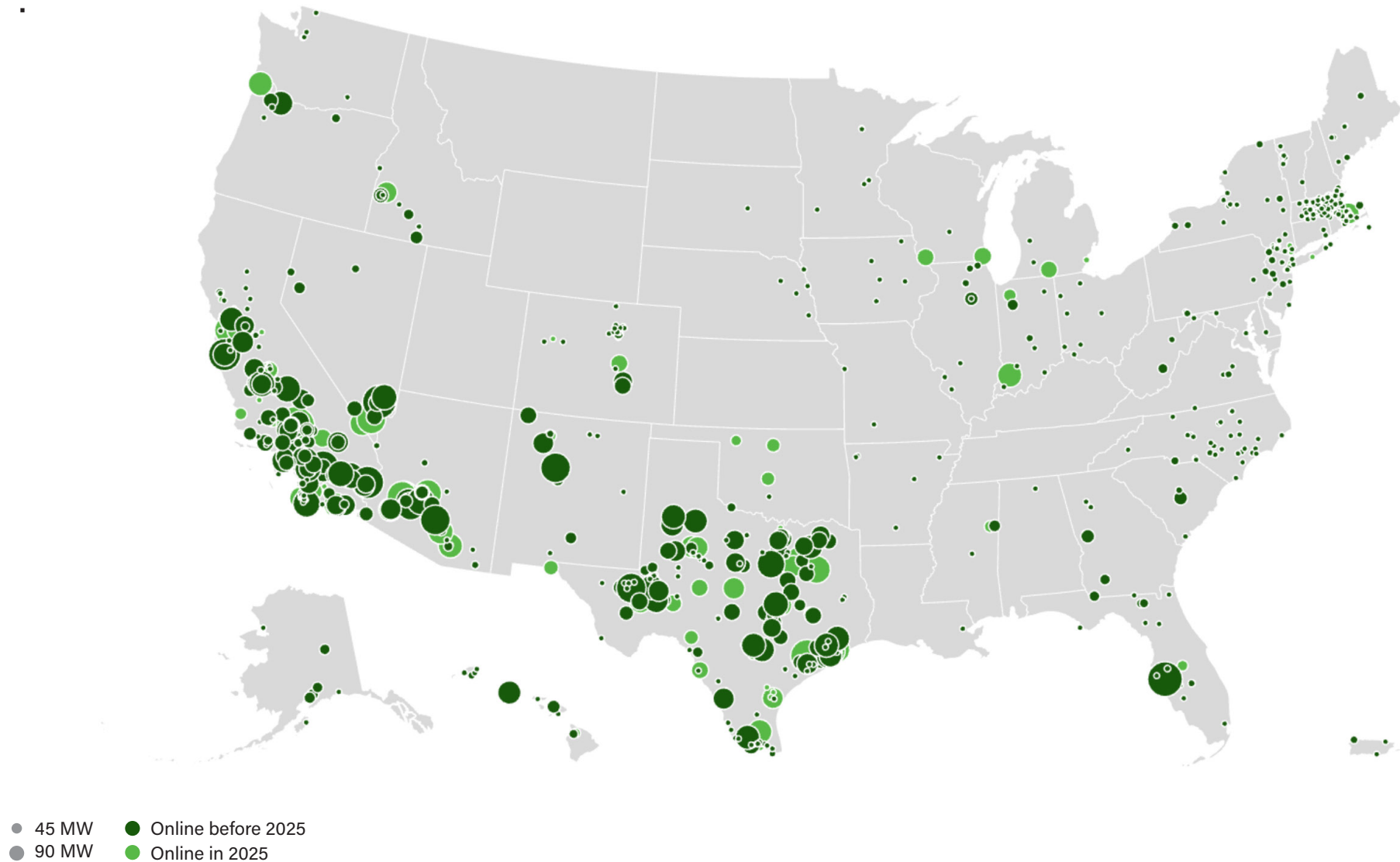
- Battery storage capacity hit another milestone in Q3, passing 40 GW of operational capacity to end the quarter at 40,321 MW/112,002 MWh.
- Developers brought online 50 new battery storage projects in the third quarter, adding 4,686 MW of new capacity to the grid. Q3 2025 was the strongest third-quarter and second-largest quarter for new storage additions on record.
- Year-over-year, Q3 2025 saw a 32% increase in installations compared to Q3 2024 installations.
- The largest battery storage project to come online in Q3 was Enel Green Power North America's 359 MW GulfStar Storage in Wharton County, Texas. GulfStar Storage is co-located with a 450 MW solar phase, GulfStar Solar.

U.S. Annual and Cumulative Battery Storage Capacity Growth



Note: Battery storage capacity is tracked in terms of rated power capacity (MW), the maximum possible instantaneous discharge, and energy capacity (MWh), the maximum amount of stored energy.

Geography of Energy Storage

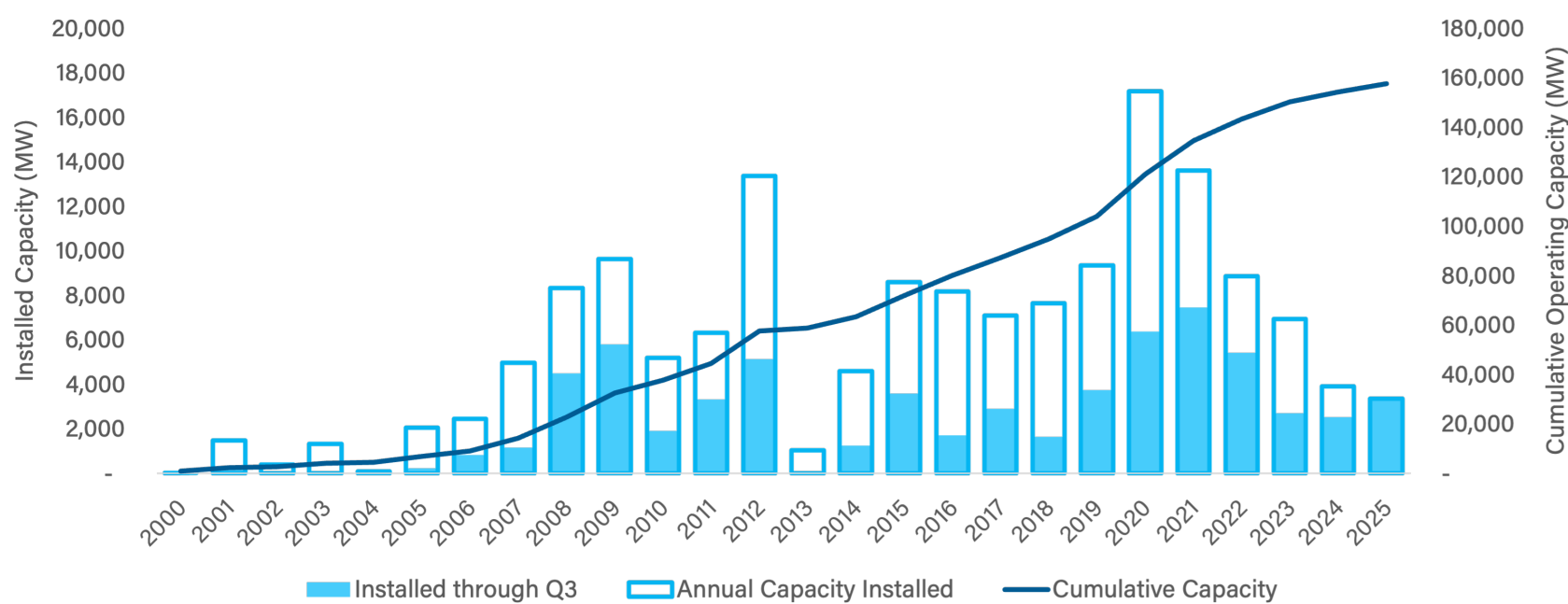


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Q3 2025 Land-Based Wind Installations

- During Q3 2025, project developers added 1,027 MW of new capacity to the grid, bringing the total operational capacity for land-based wind power to 157,586 MW.
- After a relatively slow year in 2024, wind power installations are showing signs of recovery. Year-to-date, developers have brought online 3,366 MW of capacity, outpacing the 2,534 MW installed in the same period in 2024.
- At 270 MW, ENGIE North America's Big Sampson Wind was the largest project to begin commercial operations during Q3 2025. Consisting of 60 Vestas V163-4.5 turbines, a portion of the power generated at the site will power Sonoco Products Company's operations under a virtual PPA.
- While installations have picked up, the average project size has also increased. The weighted average of projects commissioned in 2025 was 242 MW, compared to 196 MW in 2024 and 233 MW in 2023.
- Looking ahead, the land-based wind outlook will be shaped by many factors, including trade policy, tax credit and safe harbor timelines, permitting, interconnection queue lengths, and local siting issues.

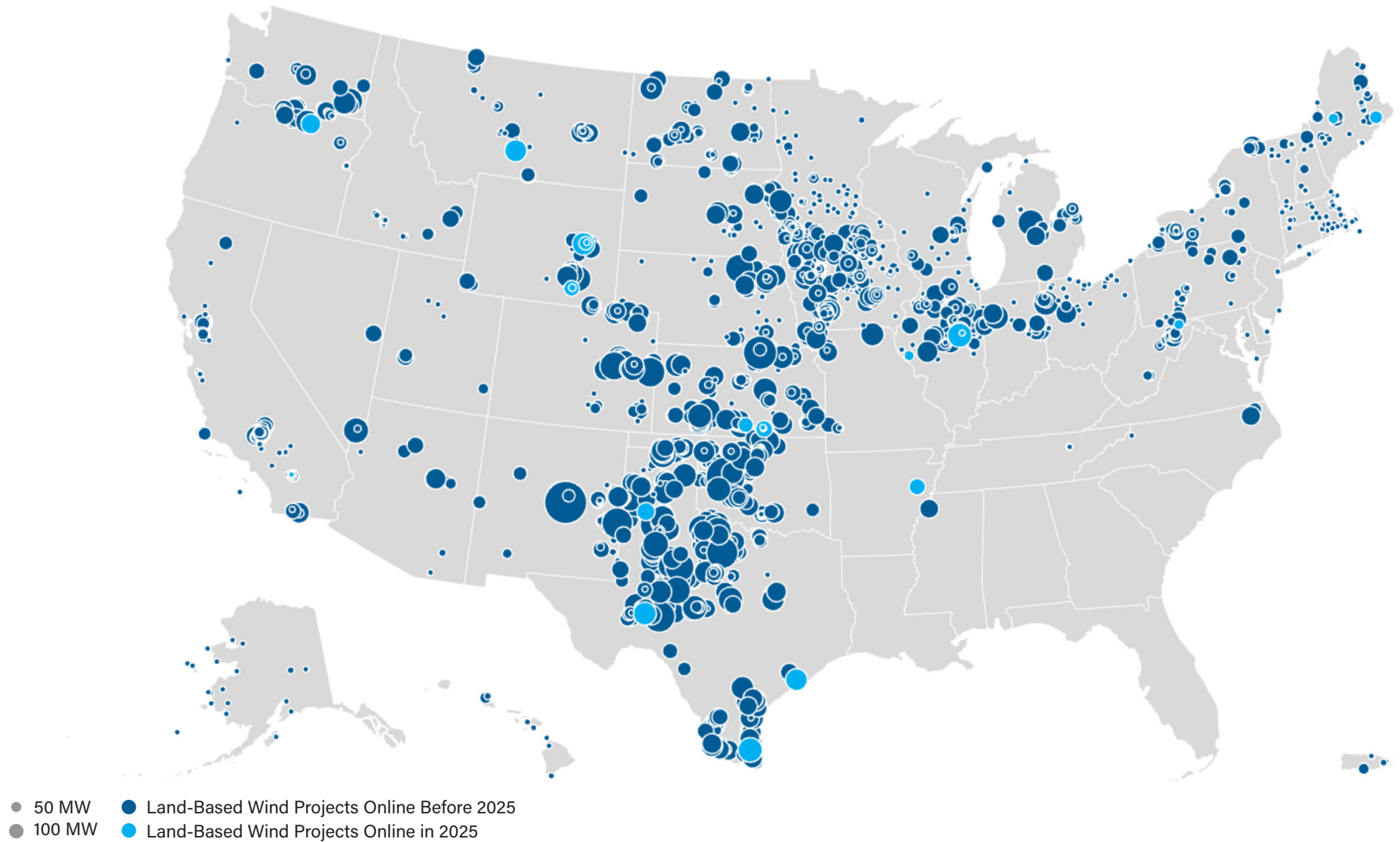
U.S. Annual and Cumulative Land-Based Wind Capacity Growth



Note: ACP is aware of additional repowering project activity during the first nine months of 2025. Because project details could not be confirmed, these projects are excluded from report data.

LAND-BASED WIND

Geography of Land-Based Wind



Offshore Wind News

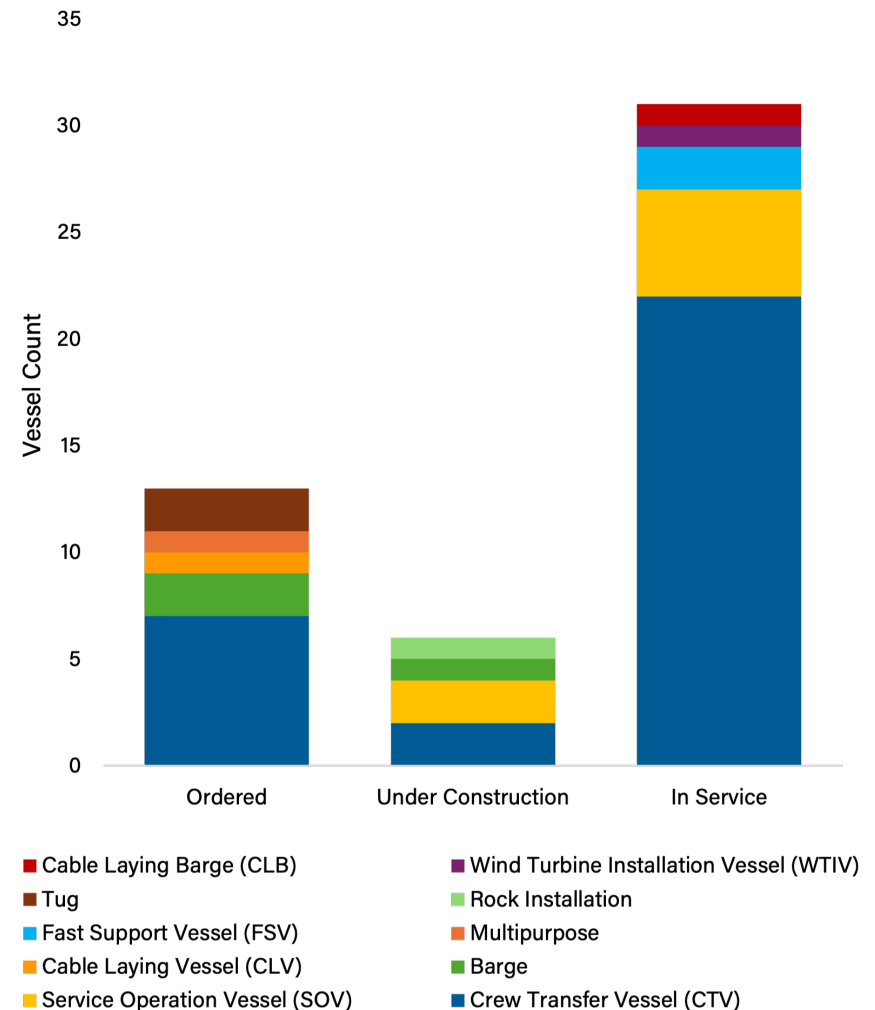
State Activity

- On June 10, Atlantic Shores submitted a petition with the New Jersey Board of Public Utilities (BPU) to terminate the Atlantic Shores 1 OREC agreement. On August 13, NJBPU published an order approving Atlantic Shore's petition.
- On August 7, the Massachusetts Department of Energy approved an order to delay the state's fifth offshore wind solicitation until at least 2026. The decision was supported by continued contract negotiations for Massachusetts' fourth offshore wind solicitation and uncertainty on federal offshore wind permitting.
- For the third quarter, NYSERDA released an update on the agency's offshore wind activities. New York state's 5th offshore wind solicitation remains ongoing, and NYSERDA is in contact with the bid applicants. The timeline for the state's 6th offshore wind solicitation is not yet determined.

Manufacturing Activity

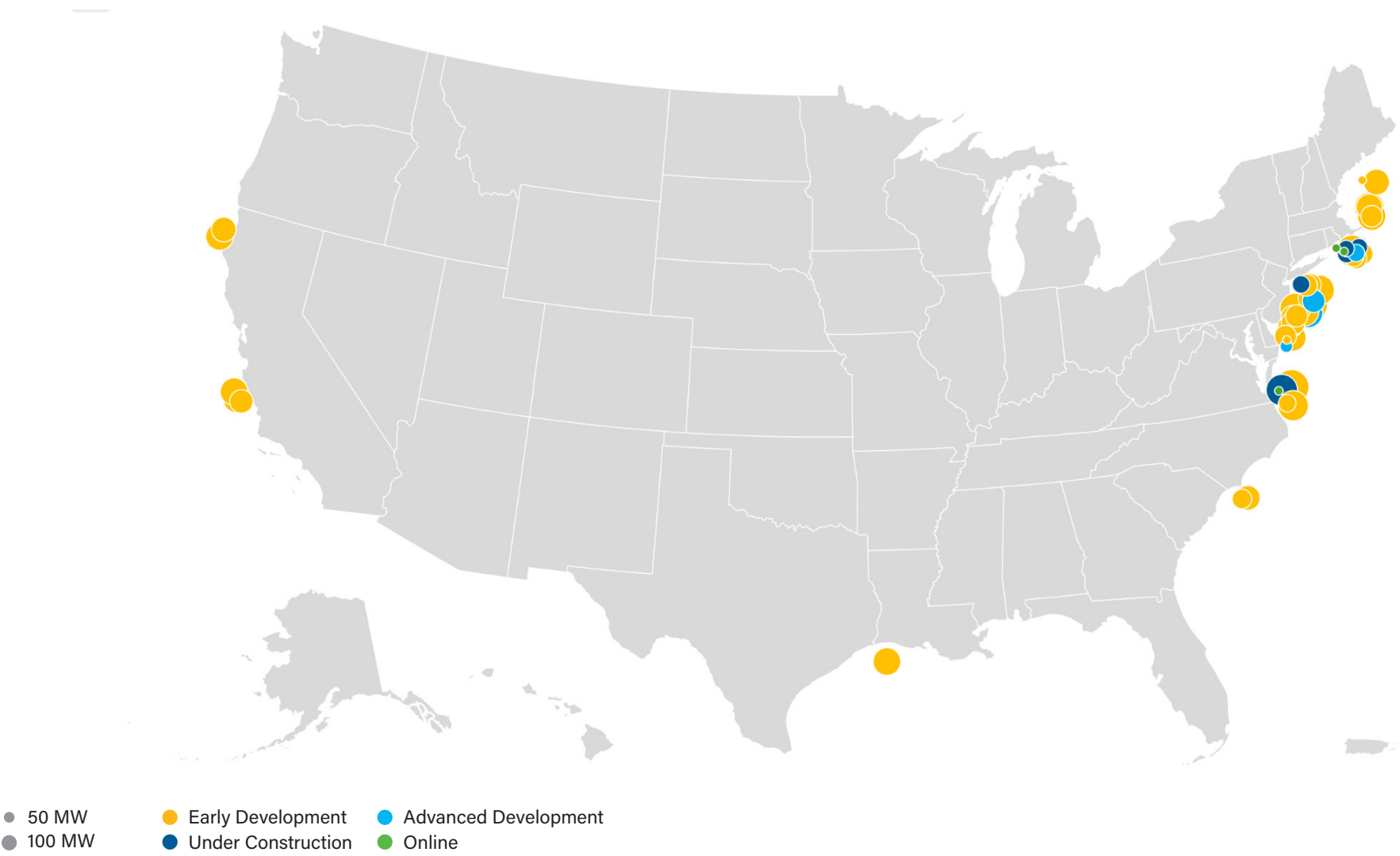
- On July 24, Great Lakes Dredge & Dock launched the first U.S.-flagged subsea rock installation vessel (RIV) at the Hanwha Philly Shipyard. Final delivery of the *Acadia* is expected in early 2026.
- On July 31, Nexans and Crowley Wind Services announced a partnership to develop and operate a cable lay barge. The U.S.-flagged barge, originally built in Louisiana, was outfitted at LAD Shipyard to meet Nexans' cable lay specifications. The cable lay barge will support the installation of subsea transmission lines for offshore wind, telecommunications, and other major industrial applications.
- On September 17, the first U.S.-flagged wind turbine installation vessel (WTIV), *Charybdis*, docked at Portsmouth Marine Terminal in Virginia. The \$715 million WTIV will support the installation of turbines for the Coastal Virginia Offshore Wind project.
- On September 23, Seatrium Limited announced a deal to sell its AmFELS Shipyard in Brownsville, Texas. Karpowership, a subsidiary of Turkish company Karadeniz Holdings, will acquire the shipyard for \$50.67 million.
- On August 1, St. Johns Ship Building in Palatka, Florida, delivered a crew transfer vessel (CTV) to Atlantic Wind Transfers (AWT). The *Atlantic Endurance* marks the second CTV built by St. John's Shipbuilding for AWT and the fourth CTV in AWT's operational fleet.

Vessel Count by Type



Geography of Offshore Wind

Offshore Wind Projects in Development



The American Clean Power Association (ACP) is the leading voice of today's multi-tech clean energy industry, representing energy storage, wind, utility-scale solar, clean hydrogen, and transmission companies. ACP is committed to meeting America's energy and national security goals and building our economy with fast-growing, low-cost, and reliable domestic power.

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