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## U.S. Pharma-Bio Industry Home to \$28 Billion in ESG Projects Under Construction

Industries across the U.S. continue to implement environmental, social and governance (ESG) initiatives, and the Pharmaceutical-Biotech Industry is no exception. The industry's ESG-related projects are buoyed by adherenc [...]

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## U.S. Solar Readies for \$30 Billion in Second-Quarter Kickoffs

With the U.S. expected to see up to 36.4 gigawatts (GW) of utility-scale solar generation added to its power grid in 2024, fueled partly by improving supply chains and easing trade restrictions, some of the top states fo [...]

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Wednesday, March 13, 2024

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## U.S. Pharma-Bio Industry Home to \$28 Billion in ESG Projects Under Construction

Industries across the U.S. continue to implement environmental, social and governance (ESG) initiatives, and the Pharmaceutical-Biotech Industry is no exception. The industry's ESG-related projects are buoyed by adherence to Leadership in Energy and Environmental Design (LEED) guidelines that ensure facilities are built with a multitude of "green" features. Industrial Info is tracking more than \$28 billion worth of ESG-related projects under construction in the U.S. Pharma-Bio Industry, more than half of which is in Massachusetts, California and Indiana. Pharma-Bio trails only the Industrial Manufacturing and Power industries in terms of total investment value (TIV) for U.S. ESG projects under construction.

"What may be surprising to many, is that despite the perceived image of the pharma-bio industry as being clean, a number of reports show it as having a bigger carbon footprint than the automotive industry," said Annette Kreuger, Industrial Info's vice president of research for the Pharma-Biotech Industry. But she added that long before ESG became a part of the corporate lexicon, industry majors, including [Amgen Incorporated \(NASDAQ:AMGN\)](#) (Thousand Oaks, California) and [Roche](#) (Basel, Switzerland), devised and implemented net-zero emissions programs.

In a November webinar, Kreuger discussed factors driving industry spending, including ESG trends. For more information on the webinar, see November 16, 2023, article - [IIR Webinar: Pharma-Biotech Sector Strives to Keep up With Trends, Maximize Profits](#).

According to the U.S. Green Building Council, which sets the LEED certification program, LEED buildings "use less energy and water, utilize renewable energy and fewer resources, create less waste, and preserve land and habitat."

Massachusetts accounts for about \$7.7 billion worth of spend, including three projects worth a combined \$2.4 billion. That includes life science real estate developer [IQHQ Incorporated's](#) (Solana Beach, California) construction of the **\$1 billion Fenway life science research center in Boston**, which entails constructing two LEED Gold towers totaling 960,000 square feet and equipping them for leasable lab and office and retail space on the ground floor, among other efforts. According to IQHQ's *2022 ESG Annual Report*, the project's sustainability efforts include utilizing [Vicinity Energy's](#) (Boston) eSteam carbon-free thermal energy technology to supply heating and tenant needs. The project is expected to wrap up by the end of 2025. Subscribers to Industrial Info's Global Market Intelligence (GMI) Pharmaceutical-Biotech Industry Project Database can [click here](#) to read a detailed project report.

Also underway is the construction of [Takeda Pharmaceutical Company Limited's](#) (Tokyo, Japan) **brownfield \$700 million research & development (R&D) facility at an existing lot in Cambridge**, to develop oncology, hematology, neuroscience and gastroenterology therapeutics. The project entails building a 600,000-square-foot LEED-gold- or-higher building, and construction is expected to wrap up in mid-2026. [Suffolk Construction Company](#) (Boston, Massachusetts) is providing general contracting services. [Click here](#) for the project report.

Meanwhile, American pharmaceutical company [Eli Lilly \(NYSE:LLY\)](#) (Indianapolis, Indiana) leads all companies in investment (\$2.4 billion). This includes construction of its **brownfield \$700 million Lilly Institute for Genetic Medicine facility in Boston**, a 334,000-square-foot LEED building to research and develop genetic and ribonucleic acid (RNA) medicinal therapies with a range of applications, including diabetes, immunology and central nervous system research. The facility is expected to open later this year. Eli Lilly is leasing the building site at a 12-story **life sciences R&D laboratory facility** being constructed by [Alexandria Real Estate Trust Equities \(NYSE:ARE\)](#) (Pasadena, California). The project is expected to be completed by the end of March. Subscribers can read more information on the [Eli Lilly](#) and [Alexandria](#) projects.

Eli Lilly also is at work on building two LEED-certified active pharmaceutical ingredients (APIs) plants at its campus in Lebanon, Indiana. The plants are being built concurrently on the campus. The **\$2 billion Plant 1** will be 330,000 square feet, while the **\$1.7 billion Plant 2** will come in at 220,000 square feet. The facilities will expand Eli Lilly's manufacturing capacity of APIs for brand-name and generic drugs as well as new therapeutic modalities such as genetic medicines. The facilities are expected to be completed in early 2027. Subscribers can [click here](#) for the report on Plant 1 and [click here](#) for more information on Plant 2.

Industrial Info is tracking two \$250 million+ projects from American biotechnology corporation [Genentech](#) (San Francisco, California), a subsidiary of Roche, in California. That includes a LEED **building addition at its bulk biologicals facility in Oceanside**, 35 miles north of San Diego; the two-story, 84,000-square-foot building will utilize single-use technology systems for the clinical-scale production of bulk biological drug substances. The facility is expected to be operational in 2025. Genentech also is constructing a **brownfield biologics R&D facility in South San Francisco** that will feature a 229,000-square-foot LEED Gold building equipped for the R&D of biopharmaceuticals and related Genentech activities. Construction is expected to wrap up in May. Subscribers can read more information on the [Oceanside](#) and [South San Francisco](#) projects.

The city of New York is at work on a **\$613 million brownfield project next to the Harlem Hospital Center**, which entails constructing an approximately 240,000-square-foot, LEED Silver building to provide testing and analysis services for microbiology, environmental sciences, toxicology, virology, immunology, bio- and chemical-threat and other related specimens. The project is expected to wrap up in early 2026. [Click here](#) for the project report.

Brownfield projects account for \$10 billion of the \$28 billion in total investment value of Pharma-Bio ESG-related projects under construction in the U.S. [Click here](#) for a full list.

Subscribers to the GMI Database can [click here](#) for all project reports mentioned in this article and [here](#) for related plant profiles.



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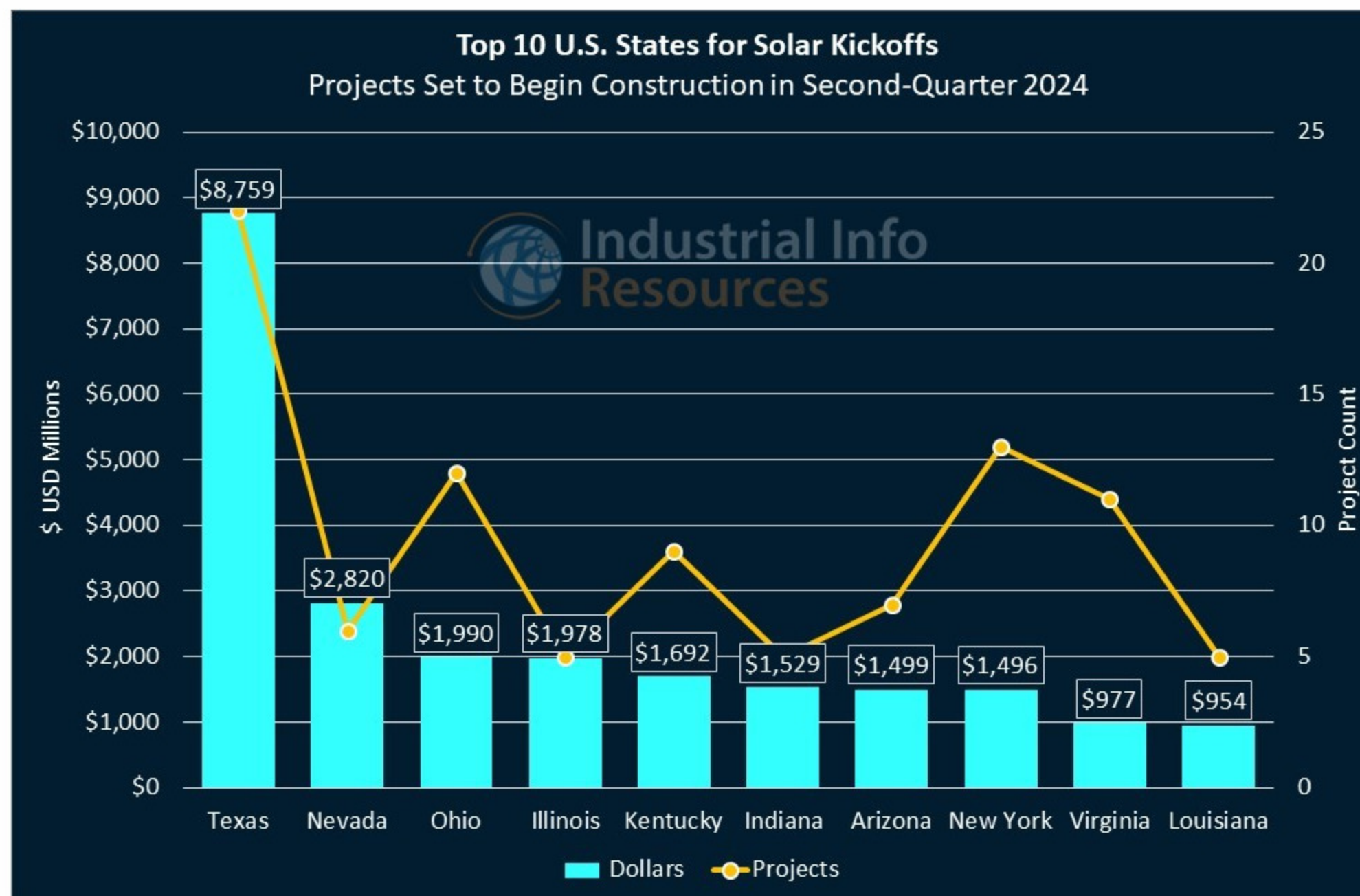
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## U.S. Solar Readies for \$30 Billion in Second-Quarter Kickoffs

With the U.S. expected to see up to 36.4 gigawatts (GW) of utility-scale solar generation added to its power grid in 2024, fueled partly by improving supply chains and easing trade restrictions, some of the top states for the energy resource are preparing to notch up major project kickoffs. Industrial Info is tracking more than \$30 billion worth of active and planned solar-generation projects across the U.S. that are set to begin construction in the second quarter, about half of which is attributed to projects with a medium-to-high (70% or more) probability of kicking off as scheduled.



Everything is bigger in Texas, including the outlook for solar generation. The Lone Star State alone accounts for nearly 30% of the investment in projects slated to kick off in the second quarter, including [Enbridge Incorporated's \(NYSE:ENB\)](#) (Calgary, Alberta) **\$1.38 billion Cadillac Solar Project in Putnam**, which is set to generate 956 megawatts (MW) across two phases. The **\$771.4 million Phase I** and the **\$612 million Phase II** both will use photovoltaic (PV) panels developed by [Renogy](#) (Ontario, California).

Enbridge picked up the Cadillac projects when it acquired Tri Global Energy, then one of the leading renewable-energy developers in Texas, in 2022. "The more renewables investment aligns well with our corporate strategy and supports our energy transition and growth expectations," said Greg Ebel, the chief executive officer of Enbridge in a quarterly earnings-related conference call, later adding: "We've structured our renewable business very differently from some of the folks that you see out there, i.e. long-term power purchase or contracts for projects, even before they're built or immediately upon construction."

Subscribers to Industrial Info's Global Market Intelligence (GMI) Power Project and Plant databases can read detailed project reports on Cadillac [Phase I](#) and [Phase II](#), and read a detailed [plant profile](#).

[NextEra Energy Incorporated \(NYSE:NEE\)](#) (Juno Beach, Florida) is another major solar developer with project kickoffs planned across multiple states in the second quarter. The company is preparing for a **\$530 million expansion of its Dunns Bridge Solar Plant in Tefft, Indiana**, which will add 435 MW to the existing 265-MW facility, which was completed in August 2023. It also aims to develop a 70-MW **solar plant in Circleville, Ohio**; the projects are slated to use panels developed by [Canadian Solar Incorporated \(NASDAQ:CSIQ\)](#) (Guelph, Ontario) and [JinkoSolar \(NYSE:JKS\)](#) (Shanghai, China) respectively.

In a recent earnings-related conference call, John Ketchum, the chief executive officer of NextEra, was upbeat about the U.S. market outlook for solar in 2024: "Solar panel and battery prices have already declined by roughly 25% from their peak over the last 24 months, heading into 2024. We have proactively procured critical electrical equipment to complete our renewable projects, securing enough transformers and breakers to cover our expected build through 2027. And due to our scale and construction partnerships, we have not experienced any labor shortages impacting project timelines." Subscribers can read detailed reports on the [Dunns Bridge](#) and [Circleville](#) projects.

Ohio trails only Texas and Nevada in its total investment in second-quarter solar kickoffs, with the latter state home to [ibV Energy Partners LLC's](#) (Miami, Florida) **\$250 million Boulder Flats project in Boulder City**, about 20 miles southeast of Las Vegas. The project, which is set to wrap up toward the end of 2025, includes a 113-MW solar farm and a 60-MW, lithium-based battery energy-storage system (BESS) unit. The company says it has signed power-purchase agreements with Southern Nevada Water Agency, the state's water agency, and a private off-taker. Subscribers can learn more from a detailed [project report](#).

Illinois, another top state in second-quarter kickoffs, is home to a smaller solar-BESS project: [Vistra Energy Corporation's \(NYSE:VST\)](#) (Irving, Texas) proposed **addition to the power station in Hennepin**, a defunct coal-fired plant that closed its doors in 2019. The project would comprise a 24-MW solar plant and a 6-MW BESS unit. Subscribers can learn more from a detailed [project report](#).

Subscribers to Industrial Info's GMI Project and Plant databases can [click here](#) for a full list of detailed reports for projects mentioned in this article, and [click here](#) for a full list of related plant profiles.

Subscribers can [click here](#) for a full list of reports for active and planned solar-generation projects across the U.S. that are set to begin construction in the second quarter.



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## U.S. Expands Shipbuilding Capabilities with \$3.5 Billion in Active Projects

Despite facing challenges from foreign competition, particularly from countries with lower labor costs, the U.S. shipbuilding industry maintains its position as a world leader in innovation, quality and capability. Modern U.S. shipyards leverage cutting-edge technology, such as computer-aided design and advanced manufacturing techniques, to produce state-of-the-art vessels that meet the standards of both military and commercial customers.

Many of the \$3.5 billion in active projects at U.S. shipyards being tracked by Industrial Info are for the most cutting-edge military vessels. The U.S. Navy continues to rely on domestic shipbuilders to construct and maintain its fleet of warships, ensuring the nation's maritime dominance and security, and one of the biggest maritime projects presently underway in the U.S. is occurring at a naval shipyard.

Work on the reconfiguration and expansion of Dry Dock No. 1 at the Portsmouth Naval Shipyard in Kittery, Maine, began in 2022. The Department of Defense is working with [381 Constructors](#) (Kittery), a joint venture of three firms that was specially formed for the \$1.7 billion project. The reconfiguration includes multiple components, including a new concrete wall separating the north and west sections of the dry dock, a pump station building, two caissons, mooring hardware and much more. The expansion will enhance the shipyard's ability to handle multiple Los Angeles-class and the newest Virginia-class nuclear submarines.

But Dry Dock No. 1 isn't the only part of the Portsmouth Shipyard being renovated. While not as big an undertaking, Dry Dock No. 2 at the shipyard is receiving a new 21,500-square-foot permanent enclosure as well as a new modular enclosure and three bridge cranes. The Dry Dock 2 reconfiguration is expected to be completed in the near future, while the expansion of Dry Dock No. 1 is not expected to be finished until 2028. Subscribers to Industrial Info's Global Market Intelligence (GMI) Industrial Manufacturing Project Database can learn more by viewing the reports on the expansions of [Dry Dock 1](#) and [Dry Dock 2](#).

Another project geared toward U.S. Navy submarines is underway in Connecticut, where [General Dynamics Corporation \(NYSE:GD\)](#) (Reston, Virginia) is expanding its submarine manufacturing plant and shipyard in Groton. The project entails the construction of the 200,000-square-foot South Yard Assembly Building and a new floating dry dock to facilitate construction of the U.S. Navy's new Columbia-Class submarine, a nuclear vessel designed to replace an existing class of ballistic missile submarines. The project got underway in 2019 and is nearing completion. Subscribers can [click here](#) for more information.

Among recently announced projects is one from the U.S. division of [Austal Limited](#) (Henderson, Australia), which will expand its shipbuilding plant in Mobile, Alabama, beginning later this year. Austal will build a 192,000-square-foot building addition to expand its production of steel ships, including the Heritage-class Offshore Patrol Cutter for the U.S. Coast Guard and the T-AGOS-25 ocean surveillance ship for the Navy. Subscribers can learn more by [clicking here](#).

Another project with submarines in mind is set to kick off in Lordstown, Ohio, later this year, although not a shipyard. [Bartlett Maritime Corporation's](#) (Broadview Heights, Ohio) planned facility will assemble kits consisting of all equipment and materials needed for the overhaul of specific Navy submarines and other vessels. This ready-to-install equipment and material will be shipped to each overhaul shipyard and be there before the ship arrives. The facility is expected to be ready to produce its repair kits in late 2025. Subscribers can [click here](#).

Another project will help make the navigation of today's large ships easier through the manufacture of dredging machines to remove sediment from boating or maritime shipping channels, making waterways deeper. [LJ Incorporated](#) (Swartz Creek, Michigan) plans to establish the new factory and corporate headquarters down the road from its existing Swartz Creek location to nearby Lennon, Michigan. But the 150,000-square-foot facility will not manufacture run-of-the-mill machines, but rather autonomous dredgers, which LJ claims will be the world's first such vessels. The plant is expected to take less than a year to construct, putting it on track for completion in early 2025. Subscribers can learn more by viewing the [project report](#).

As one can see, the U.S. is spending billions of dollars to keep its shipbuilding capabilities top-notch. Continued investment in infrastructure, workforce development and technology will be essential for maintaining this growth, and continued investment at the nation's shipyards is expected to extend well into the future.

Subscribers to Industrial Info's GMI Industrial Manufacturing can [click here](#) to view reports for all of the projects discussed in this article and [click here](#) to view the related plant profiles.



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The Oil & Gas Industry has been struggling to keep up with rising demand, production cuts and the ongoing Russia-Ukraine conflict. In addition to the Russia-Ukraine conflict, many other factors have been bringing the petroleum refining, alternative fuels and crude oil markets into the spotlight.

We hope you are able to join our industry experts as they discuss the key trends that will impact these sectors over the next 24 months. [Click here](#) to learn more and RSVP.

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