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THE TRANSATLANTIC
SUN  **WIND BELT**

U.S. ENERGY TRANSITION REPORT

BY CLEAN ENERGY ASSOCIATES

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VIRGINIA APPROVES 1 GIGAWATT RENEWABLE ENERGY EXPANSION

The state of Virginia has given the green light to utility Dominion Energy to build out 1 gigawatt of wind and solar projects by the end of 2023, to bring the total capacity of renewable energy on its system to 7 gigawatts. The Virginia State Corporation Commission has approved 15 Dominion Energy projects, as well as the signing of power purchase agreements with 24 projects owned by third-party developers.

UtilityDive reports that this includes 11 new utility-scale solar projects, two distributed solar installations, one energy storage project and one solar-plus-storage project. The Dulles Solar and Storage project will be located at Dulles Airport, which serves Washington D.C. and feature 100 megawatts of solar and 50 megawatts of energy storage, as the largest solar-plus-storage project that Dominion has built to date.

In April 2020, Virginia Governor Ralph Northam signed the Virginia Clean Economy Act, which requires utilities in the state to fully decarbonize by 2045. This includes an order for regulators to approve 10.5 gigawatts of solar, 2.5–3 gigawatts of offshore wind and 1.75 gigawatts of energy storage on behalf of Dominion Energy.

This target puts Virginia among the handful of U.S. states that have passed mandates to get to 100% clean and/or renewable generation. Washington D.C. has a 100% by 2032 renewable energy mandate, but as it is not a state Virginia is only the second state east of the Rocky Mountains (after New York) to set a 100% clean energy mandate. And lawmakers in Rhode Island are also considering a 100% by 2030 renewable energy mandate.

Virginia has a long way to go to meet its targets but is moving quickly. In 2021 the state met less than 3% of demand with in-state solar, but total solar output [more than doubled](#) over 2020 levels.

The state’s wind and hydroelectric capacities are limited and it gets 29% of its electricity from nuclear power. Additionally, Dominion has built two test offshore wind turbines in federal waters in the Atlantic Ocean and is now planning a 2.64-gigawatt offshore wind project which it plans to bring online by 2026.

Read more:

News coverage: [Virginia approves 1 GW renewable energy expansion by Dominion Energy](#) (UtilityDive)

Source: [Significant Expansion of Solar and Energy Storage Approved for Dominion Energy Virginia Customers](#) (Dominion Energy)

Background: [Ten things to know about the Clean Economy Act](#) (Virginia Mercury)

CALIFORNIA APPROVES \$3 BILLION IN TRANSMISSION FOR THE ENERGY TRANSITION

California’s grid operator has approved 23 transmission projects totaling \$2.96 billion in its latest annual plan, a price tag 13x higher than its average over the last five years. This follows on a California Independent System Operator (CAISO) report earlier this year which identified the need to invest \$30.5 billion in transmission over the next 20 years to accommodate the energy transition.

According to CAISO statements, the projects proposed in its 2021–2022 plan are driven by a combination of renewables build-out and the need to keep reliability high amid load growth and “evolving grid conditions.” The plan will accommodate 2.7 GW of new resources per year, versus the 1 GW that was planned in previous years, but still less than the 4 GW per year that it expects to accommodate in the future.

The statements about high load come after a decade of slow decline in [electricity sales](#); however, CAISO has good reason to believe that this trend will reverse. California is the leading adopter of electric vehicles in the nation. EVs and plug-in hybrids represented 12.8% of new light duty vehicle sales in 2021, more than 3x the national share.

And as CAISO plans this massive transmission build-out, it is also looking to battery storage to help meet reliability needs. A memo from CAISO’s VP of infrastructure and operations planning notes that “increased opportunity for non-transmission alternatives, particularly preferred resources and storage” continue to be a key focus of its analysis. And [plenty of batteries](#) are on their way; at the beginning of 2022 CAISO had approved 21.2 gigawatts of solar plus storage and 6.55 gigawatts of battery storage for interconnection.

Read more:

News coverage: [CAISO approves nearly \\$3B of transmission projects to prepare for California's clean energy goals](#) (UtilityDive)

Primary source: [Memorandum](#) (CAISO)

POLITICAL PRESSURES WEIGH ON U.S. SOLAR TRADE CASES

As the U.S. solar industry braces for a decision that could upend the market and send projects into chaos, politicians, trade groups, and unions are weighing in to influence federal trade policy. This includes letters from politicians both calling for the Department of Commerce to initiate the anti-circumvention investigation that Auxin Solar has asked for, and those warning against an investigation.

On 25 March, the U.S. Department of Commerce will issue a decision on whether to pursue this anti-circumvention investigation against solar cell and module makers in Cambodia, Malaysia, Thailand, and Vietnam that together supplied 80% of U.S. solar imports in 2021. As duties could be applied retroactively back to November 4, 2021, this decision is already having market impacts.

On 15 March, a group of 15 U.S. representatives wrote to Commerce Secretary Gina Raimondo urging her to “fully and fairly” investigate allegations that Chinese solar companies are circumventing the duties. They were joined in another letter by two senators from the state of Ohio who also support the investigation. First Solar has multiple large factories in Ohio and these duties would shut its competitors out of the market.

However, on 9 March nine other U.S. representatives sent a letter have urged Congress to consider “the larger impacts of the proposed duties, which could devastate the solar industry and sabotage our efforts to fight climate change.” Also on March 9, 14 senators submitted a letter asking Commerce to “carefully consider” the validity of Auxin’s petition, stating that it would “severely harm” the U.S. solar industry to pursue the investigation.

Both members of the Democratic and Republican Parties have weighed in on both sides. Such a bipartisan split is rare in the United States’ increasingly polarized political climate.

Along with the politicians, a large majority of the U.S. solar industry has opposed the investigation—including Canadian module maker Silfab, which has U.S. factories that are dependent on imported cells. Additionally, Edison Electric Institute (EEI), the trade group for U.S. utilities, has called on Commerce to decline the investigation.

In their letter to the Department of Commerce, the 15 members of congress calling for a full investigation of anti-circumvention also stated that they support “holding China accountable” for human rights abuses and calling for “specific and aggressive efforts focused on the solar supply chain.” They are joined in these calls for stronger action by the AFL-CIO, the main body of U.S. unions.

MARKET IMPACTS

If the anti-circumvention investigation goes forward on 25 March, the main impact will be the removal of around 40 gigawatts of Southeast Asian cell production and nearly 50 gigawatts of crystalline silicon module production in the named countries. Module suppliers in the named countries are unwilling to sign any new supply agreements until a ruling has been made. If an investigation is opened, most suppliers plan to stop shipments until a final decision.

Pricing impacts from an anti-circumvention extension decision are unknown as the pool of supplier candidates in non-named countries is limited and not oriented towards the utility-scale market segment. But if an anti-circumvention investigation is even undertaken, utility-scale pricing over \$0.40/W would likely become standard through 2023 until suppliers can adjust. This is a large increase from CEA's pre-anti-circumvention pricing expectations.

Most capacity outside of Cambodia, Thailand, Malaysia, and Vietnam is unsuitable for the U.S. utility market given that non-Southeast Asian production typically has higher production costs and requires market segments that can afford higher module prices. Most non-Southeast Asia production targets the distributed generation market segment or contains a limited pool of "bankable" utility-scale module suppliers.

There is also a limitation of around 32 gigawatts of non-China, non-named country cell production expected to be online by the end of 2022. As most of those 32 gigawatts are distributed generation-oriented or still being constructed and ramped, there would be a shortage of cell inputs for module production as 2022 U.S. installation expectations were around 30 gigawatts.

Read more:

News coverage: [How U.S. crackdown on China's human rights record hits solar](#) (E&E News)

Background: [Commerce gives itself more time to consider solar anticircumvention petition](#) (SolarPowerWorld)

Additional material sourced from CEA Research

FINANCIAL REGULATORS PROPOSE EMISSIONS, CLIMATE RISK REPORTING REQUIREMENTS

On 21 March, the U.S. Securities and Exchange Commission proposed new requirements for publicly traded companies to report both the risk they face due to climate change and their emissions. The rule would require reporting on both "scope 1" emissions, or direct emissions from operations, and "scope 2" emissions, which are the indirect emissions from the generation of electricity that is consumed. For companies where it is material to their business, "scope 3" emissions, or the emissions associated with their supply chain, would also be required.

Under the proposal, independent verification of greenhouse gas emissions would be required. Companies would also be required to describe their governance and strategy towards climate risk on quarterly statements and would also be required to describe their plan for addressing this risk.

The proposal opens a two-month public comment period, and lawyers who UtilityDive spoke with expect the measure to attract heavy criticism from business groups. If approved, it may be challenged legally. But while some business groups are characterizing the SEC’s move as mission creep, the requirements are a response to calls for clarity and uniformity around greenhouse gas reporting from businesses and investors. There are currently multiple standards developed by independent organizations for greenhouse gas reporting. These use different methodologies and can produce different results.

Read more:

News coverage: [SEC unveils landmark climate-risk disclosure rule for publicly traded companies](#) (E&E News)

News coverage: [SEC proposes 'rules of the road' for climate-risk disclosures](#) (UtilityDive)

Primary source: [Proposed rule: The Enhancement and Standardization of Climate-Related Disclosures for Investors](#) (Securities & Exchange Commission)

NEWS ROUNDUP: MANCHIN MAY PASS AGAIN ON CLIMATE POLICY, PJM TO RETIRE 3.2 GW OF COAL THIS YEAR, NATION’S SECOND-LARGEST WIND FARM COMES ONLINE

Negotiations have re-started with U.S. Senator Joe Manchin over the climate provisions in the stalled Build Back Better (BBB) bill, according to sources cited by E&E News. However, according to one source the version of the bill that was passed out of the committee he chairs, the Senate Energy and Natural Resources Committee, will no longer be the basis for negotiations.

While many in the press and advocacy community have taken Manchin at his word that he does not object to the climate provisions, they may be ignoring other evidence. This includes Manchin’s heavy ties to the fossil fuel industries and his anti-climate political posturing. Manchin has also changed his positions over time and recently made statements objecting to investments in electric vehicles in BBB, among other U-turns.

News coverage: [Manchin ready to engage on reconciliation](#) (E&E News)

3.24 gigawatts of coal-fired power plants have announced plans to retire this year and next year in the nation’s largest wholesale power market. PJM Interconnection, which covers parts of the East Coast and Midwestern United States, has long been one of the regions with the most coal plants. However, in March the owners of four different power plants in New Jersey, Ohio, and West Virginia announced that they would shut down units.

Units at two plants in New Jersey are scheduled to retire this summer, and the other plants are scheduled for June 2023. These announcements part of a cascading series of coal plant closures, which have continued even as rising gas prices are driving up wholesale power prices.

News coverage: [Coal plant owners seek to shut 3.2 GW in PJM in face of economic, regulatory and market pressures](#) (UtilityDive)

Utility American Electric Power (AEP) has completed the 998-megawatt Traverse Wind Farm in Oklahoma. This is the second-largest wind farm in the United States, after the Alta Wind Energy Center in Southern California. The wind farm is expected to generate 3.8 terawatt-hours annually, or roughly half the electricity demand of Rhode Island, and will sell electricity to two utilities with customers in Louisiana, Oklahoma, and Arkansas.

Oklahoma is in the Plains States, which stretch across the dry, flat farm and pastureland from Texas to North Dakota and are generally considered to have the best land-based wind resources in the United States. Much of the nation's wind development is concentrated there. Texas has the largest wind capacity in the nation, and grid operator Southwest Power Pool, which covers much of the Plains States, got [34.6% of its power](#) from wind in 2021. This [compares to](#) 9.1% in the nation overall.

News coverage: [AEP sets course for rapid increase in renewables after completing company's largest wind farm](#) (UtilityDive)

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