

# DIRECTION

THE FUTURE OF WIND

The 1.5°C target classification is the most ambitious designation available through the SBTi validation process. (Courtesy: Vestas)

# Vestas to keep climate targets in line with 1.5°C scenario

As a leading renewable energy company, Vestas recently announced that the Science Based Targets Initiative (SBTi) has validated the company's greenhouse gas reduction targets and confirmed them as in line with the levels required to keep global warming to 1.5°C above pre-industrial temperatures – the most ambitious goal of the Paris Agreement. Vestas is the first renewable energy manufacturer to have its targets validated by the SBTi as consistent with a 1.5°C scenario. The target validation follows Vestas' announcement in January 2020 to become carbon neutral, without the use of offsets, by 2030.

“At Vestas, we are proud to reach this milestone with SBTi; becoming carbon neutral by 2030 is a key element within Vestas' goal of becoming the global leader in sustainable energy solutions, said Henrik Andersen, CEO and president of Vestas. “With several nations and global businesses outlining intentions for a green economic recovery from COVID-19, the renewables industry is set to become a more dominant resource in the global-energy mix. As the world's leading supplier of wind energy, Vestas is determined to ensure that the industry continues to minimize environmental impacts as it scales.”

“Vestas' science-based targets put the company on a pathway to reach zero emissions faster than what science tells us is needed,” said Cynthia Cummis, director of Private Sector Climate Mitigation at World Resources Institute, one of the Science Based Targets initiative partners. “By setting targets that are grounded in climate science, Vestas is positioning themselves as leaders in their sector and setting themselves up for success in the transition to a net-zero economy.”

The 1.5°C target classification is the most ambitious designation available through the SBTi validation process and covers Vestas' targets to reduce emissions from direct operations

(scope 1 and 2 emissions) by 100 percent by 2030 from a 2019 base year. Separately, Vestas' target for reducing emissions from its supply network (scope 3 emissions) by 45 percent per MWh generated by 2030 has also been validated as notably ambitious. In a recent report, the IPCC stipulates that limiting the rise in the global temperature to 1.5°C, as opposed to 2°C, will significantly reduce the risk of extreme impacts from climate change.

The 1.5°C scenario of the Paris Agreement outlines the measures required to limit the global temperature increase to 1.5°C above pre-industrial temperatures. Ensuring that all direct operations are closely aligned with the 1.5°C scenario is necessary for Vestas to ensure the company can remain sustainable as it scales its position within the energy sector's supply chain. A recent report from the Carbon Disclosure Project (CDP) found company supply chains produce on average five times more emissions than direct operations. The research also found increasing the proportion of renewable energy within supply chains is an effective pathway to address emissions.

“Limiting global warming to 1.5°C above pre-industrial temperatures cannot be achieved if all global actors work in isolation; we must adopt a collaborative approach,” said Lisa Ekstrand, head of Sustainability at Vestas. “At Vestas, we recognize that, as a global leader within the renewable industry's value chain, we have a responsibility to be ambitious in our approach to reducing greenhouse gas emissions. This has been the driving force behind devising our strategy for becoming carbon neutral, and for reducing emissions in our supply chain.”

Company cars are gradually being replaced across Vestas with more sustainable alternatives. Close to 100 green service vehicles are now in operation, signaling Vestas' first step within direct operations toward its 2030

goal. Moving forward, Vestas will also be focusing on fulfilling its ambitions for reducing greenhouse gas emissions within its own supply chain, in line with its target of a 45-percent reduction. To support this goal, Vestas has already established partnerships with several suppliers, including DSV, to improve its emission reductions within transport and turbine manufacture.

**MORE INFO** [www.vestas.com](http://www.vestas.com)

## Federal offshore wind lease auctions could reap major benefits

The United States has an opportunity to accelerate offshore wind energy growth and benefit from 28 new GW of clean energy and \$1.7 billion in U.S. Treasury revenue by 2022, a recent study released from research group Wood Mackenzie finds.

Findings from this study confirm additional lease areas are needed to meet demand, reduce energy costs, increase competition, and ultimately generate thousands of jobs and billions in investment. Additionally, the findings offer guidance to decision-makers about new offshore wind leases, which can be a short-term solution to jump start recovery from a coronavirus pandemic-driven economic slowdown.

Commissioned by four energy industry groups, American Wind Energy Association (AWEA), National Ocean Industries Association (NOIA), New York Offshore Wind Alliance (NYOWA), and the Special Initiative on Offshore Wind (SIOW) at the University of Delaware, the study dives into the economic impact of offshore wind activities as a result of potential Bureau of Ocean Energy Management (BOEM) lease auctions in 2020, 2021, and 2022. Based on existing activities and policy assumptions for future offshore wind development, 2 million acres of federal waters in the New York Bight, which

includes parts of New Jersey, as well as California and the Carolinas, could be auctioned for commercial leases as early as this year into 2021. Such leasing could support 28 GW of offshore wind development and generate \$1.2 billion in U.S. Treasury revenue. Other auctions for lease areas in the Gulf of Maine and areas in California could happen in 2022 and would generate an additional \$500 million in U.S. Treasury revenue.

“Policymakers at the federal and state levels right now hold the key to unlocking the full potential of the offshore wind industry that will benefit all Americans,” said Laura Morton, AWEA senior director of Offshore Wind. “We’re on the cusp of a rare opportunity, but the U.S. remains far behind other countries in harnessing offshore wind technology. It’s time for us to unleash this abundant domestic energy source that will deliver tens of thousands of new jobs, revitalize coastal ports, and expand manufacturing opportunities, to reap major economic and environmental benefits.”

Significant capital investment will be put into the U.S. economy to support offshore wind activities. Total investment in the U.S. offshore wind industry will be \$17 billion by 2025, \$108 billion by 2030, and \$166 billion by 2035. From 2022 to 2035, capital investment of \$42 billion will go to turbine manufacturers and the supply chain, \$107 billion will go to the construction industry, and \$8 billion will go to the transportation industry and ports. Annual capital investment for O&M activities will increase to \$2.4 billion in 2035.

In addition to delivering clean energy to millions of households, the offshore wind industry will also contribute a variety of economic benefits to the U.S. economy, including supporting thousands of jobs and billions of dollars in capital investment. If the assumed BOEM auctions in 2021 and 2022 happen, total full time equivalent (FTE) job creation from the resulting offshore wind activities, including development, construction, and operation will be approximately 80,000 jobs



The American Wind Energy Association recently released a series of case studies examining all the ways wind power is helping rural communities navigate these challenging times. (Courtesy: AWEA)

annually from 2025 to 2035.

“American offshore wind is a generational opportunity,” said Erik Milito, NOIA president. “Infrastructure spending, energy security, and shovel-ready jobs with good wages will be unleashed. Importantly, offshore wind development will support jobs throughout the entire U.S. The same shipbuilders, heavy lift vessel operators, steel fabricators, and countless other companies who built the Gulf of Mexico oil and gas sector stand ready to lend their expertise to the American offshore wind industry.”

**MORE INFO** [bit.ly/33qRcf6](https://bit.ly/33qRcf6)

## Wind poised to help economy recover from COVID-19 recession

Before the pandemic, many rural communities were already struggling with population decline, retention of young people, and economic hardship due to agricultural uncertainty. In the face of COVID-19, these challenges have only grown. However, wind power is providing rural communities with an extra layer of security through land-lease payments and substantial new tax revenue. This extra funding provides the opportunity

to improve roads and infrastructure and invest in schools and other resources that strengthen the community, while drawing new residents to the area. Wind energy is also one of the few industries currently creating new manufacturing jobs.

The American Wind Energy Association recently released a series of case studies examining all the ways wind power is helping rural communities navigate these challenging times.

Offshore wind is another area that has great potential for boosting the post-pandemic economic recovery. In March, AWEA released its U.S. Offshore Wind Power Economic Impact Assessment, which found that by developing 30,000 MW of offshore wind along the East Coast, the U.S. could support up to 83,000 jobs and deliver \$25 billion in annual economic output by 2030. An August 2020 study from research group Wood Mackenzie finds offshore wind in the U.S. overall has the potential to deliver 28,000 new megawatts of clean energy and \$1.7 billion in U.S. Treasury revenue by 2022, which would significantly aid the economy in its post pandemic recovery.

Wind is also helping the U.S. recover from the pandemic more sustainably. As a zero-carbon energy source, the electricity wind turbines generate

avoided an estimated 42 million cars' worth of CO<sub>2</sub> emissions in 2019 alone. Because wind requires no water to produce electricity, it significantly reduces water consumption — saving about 103 billion gallons of water at power plants in 2019.

**MORE INFO** [awea.org](http://awea.org)

## BVG Associates gets funding for N.C. offshore development

The North Carolina Department of Commerce recently selected a team led by BVG Associates to assist in developing a strategic roadmap that will guide the state's efforts in supporting the offshore wind industry.

BVG Associates is a trusted leader in the global offshore wind space with a breadth of experience in all elements of the industry including development, finance, logistics, infrastructure, and analysis.

Over the coming months, the firm will work with state agencies and stakeholders to identify North Carolina's existing infrastructure and manufacturing assets and make recommendations to expand the state's opportunities for securing the offshore wind supply chain.

"North Carolina is already home to 55 companies that support the land-based wind industry, which is a tremendous advantage for the state's ability to transition into offshore wind," said Katharine Kollins, president of the Southeastern Wind Coalition. "The partnership between the state and BVG Associates, as well as the findings of the assessment, will be a monumental step forward in determining how to build on those advantages while driving new clean-energy business and investment to North Carolina."

To bring in-state expertise, BVG Associates has partnered with North Carolina State University's Clean Energy Technology Center and the University's Economic Development Partnership to support workforce and other stakeholder engagement

elements of the analysis.

"N.C. State is proud to share our expertise in clean-energy technologies and workforce development within those industries to this effort, and contributing to the state's broader goal of pursuing the offshore wind industry and its immense economic potential here in North Carolina," said Steve Kalland, executive director of the North Carolina Clean Energy Technology Center. Rounding out the team of experts contributing to the assessments include Lloyd's Register Energy America and the Timmons Group.

The partnership announcement comes on the heels of a study conducted by Wood Mackenzie highlighting the economic impact of leasing additional wind-energy areas for offshore wind development. In the Carolinas alone, development along the coast could lead to more than 40,000 jobs in development, construction, operations, and supply chain, and more than \$45 billion in capital investment. The study was commissioned by four energy industry groups, the American Wind Energy Association (AWEA), the National Ocean Industries Association (NOIA), the New York Offshore Wind Alliance (NYOWA), and the Special Initiative on Offshore Wind (SIOW) at the University of Delaware.

"These findings reinforce the significant economic benefit that offshore wind could provide to North Carolina, and why now is the right time to work toward capturing this unparalleled opportunity for our state," said John Hardin, executive director of N.C. Commerce's Office of Science, Technology, & Innovation. "I look forward to working with BVG Associates on charting a path forward for our ports and manufacturers to support offshore wind development off the coast of North Carolina and across the country."

The North Carolina infrastructure and supply chain analysis will be conducted through the remainder of the year, with a final report scheduled to be published in late 2020. ↘

**MORE INFO** [www.sewind.org](http://www.sewind.org)



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