

An Education in Offshore Wind

A Case Study in Offshore Wind Development

Vineyard Offshore, leading the development of the first commercial-scale offshore wind farm, prioritizes educating the communities most directly impacted about the benefits and opportunities of offshore wind energy. That has made Vineyard Wind, with its construction port of New Bedford, MA, and its operations hub on Martha's Vineyard, the testing ground for offshore wind education.

The programs developed by Vineyard Offshore have set the standard for engaging the public—and especially young people—with the exciting reality of offshore wind.

Creating Public Exhibits

Vineyard Wind has established community-focused hands-on informational exhibits in New Bedford and Martha's Vineyard that engage and educate families and local community members about the nation's first commercial-scale offshore wind project, the fundamentals of energy use, and the project's multiple benefits. Located at Bristol Community College's Wind Power Lab and in three community-based locations on Martha's Vineyard, the exhibits highlight our contributions to environmental research and workforce development utilizing text, images, videos, and personal stories of local community members, mariners, and union workers that have helped build this project.



Vineyard Wind's exhibit at Bristol Community College's Wind Power Lab

Introducing Young People to Offshore Wind

The Vineyard Offshore Education Team leads programs in our public exhibits, in the classroom, and in the field.

Our two core educational programs, geared to students grades 3 to 12, reached over 2,500 students in 2023. These learning programs are aligned with state learning standards and were delivered to district,

charter, and private school classrooms.

In the "Introduction to Offshore Wind" program students explore how offshore wind energy is generated, engage in mapping activities to learn about balancing marine resources and uses, design and test their own wind turbine blades, and experience a day in the life of a wind technician utilizing virtual reality



headsets. The “Career Pathways” program lets students explore a wide range of job opportunities within the offshore wind industry, identifying the experience, education, and training needed for each role as they reflect on their own interests and think about where they could fit into offshore wind.

Part of our core programs, is a site visit to the Vineyard Wind staging area. On this guided tour along the Harbor View Walk on the New Bedford Hurricane Barrier, students can observe the storage, assembly, and staging of wind turbine components from an elevated vantage point. Engineering and environmental personnel from the project shared their roles, career pathways, and insights from their work.

“Being near the actual turbines was way cooler than talking about them and looking at images,” said one Dartmouth High School student after taking the site tour.



Students from Youth Opportunities Unlimited designing, building, and testing their own wind turbine blades in our Introduction to Offshore Wind program.



Brooks School Innovation and Sustainability class on a Vineyard Wind site tour



Dartmouth High School Engineering and Robotics class on a Vineyard Wind site tour

Education Programs, by the Numbers

- **30 Outreach Events** – over 2,500 participants
- **44 School Programs at Exhibits** – over 700 students
- **100 Days of Office Hours** – over 1,800 visitors

Working with Local Partners

Vineyard Offshore’s educational success is built on strong partnerships. **Bristol Community College** provides educational spaces for our core programs and permanent exhibit. **New Bedford Public Schools** allow us to introduce over 1,000 local students and families to offshore wind. And **VinciVR** provides virtual reality headsets for an immersive experience in wind turbine work for program participants. Vineyard Wind has partnered with VinciVR to meet every 4th and 5th grader in New Bedford, and lead local high school programs in Greater New Bedford and Martha’s Vineyard. Vineyard Wind’s partnership with New Bedford ensures that our local school partners have access to virtual reality headsets, staff training, and technical assistance.

In New Bedford, Vineyard Offshore partnered with the **New Bedford Public Schools’ Sea Lab** to introduce every 5th grader in 2023 and every 4th grader in 2024 to our Introduction to Offshore Wind program. Sea Lab is a marine science education center designed to provide hands-on, immersive learning experiences in oceanography and other marine and environmental sciences. Our Introduction to Offshore Wind program at Sea Lab engages over 1,100 students a year.



Students from New Bedford’s Parker Elementary School experience a virtual “Day in the Life” of a wind turbine technician at Sea Lab.

Vineyard Wind’s Community Benefit Agreement (CBA) partner on Martha’s Vineyard, **Vineyard Power**, has played a vital role in permitting, outreach, education, and building community relationships. In 2023, Vineyard Wind and Vineyard Power took part in Martha’s Vineyard Regional High School’s Junior Seminar program, delivering education and career exploration to every 10th grader on the island. This joint program, led by Vineyard Wind in its first year,

was carried forward by Vineyard Power in 2024. Together, we have also led renewable energy introductions to 5th- and 7th-grade students in two of the island’s five elementary schools. Vineyard Wind also sponsored Imagine Corps, a learning and service program, alongside Vineyard Power and the Martha’s Vineyard Commission to engage 7th and 8th graders from West Tisbury School and Martha’s Vineyard Public Charter School to imagine “How can we best prepare Martha’s Vineyard for a clean energy transition and future?”



Nativity Prep students at DATMA exhibit in downtown New Bedford

Our collaboration with **Massachusetts Design Art Technology Institute** (DATMA), a local nonprofit organization that is committed to bringing world-renowned public art to the South Coast, resulted in an outdoor exhibition (with an extended exhibition online) featuring Vineyard Wind technology innovations displayed throughout downtown New Bedford and its working waterfront, engaging over 100,000 visitors throughout the summer. Using an art and design approach, this collaboration created an educational program that introduced students and educators to offshore wind technology and engineering. The multi-day, hands-on workshop resulted in engagement with a new set of schools

for us, including Our Sisters' School for girls and Nativity Preparatory School for boys, both in New Bedford and serving economically challenged families. To complement these workshops, the DATMA and VW team offered quick and fun hands-on projects monthly at outdoor community events.

"The in-person and virtual education partnership was especially impactful because together we created approachable entry points for a wide-range of audiences to learn about both art and green energy," said Lindsay Miś, executive director of DATMA. "You can't have innovation without creative minds, so our unique partnership made a lot of sense."

Giving Teachers Tools

Teachers are our ultimate partners in offshore wind education. The dedicated [For Educators](#) page on the Vineyard Wind website introduces teachers to our exhibits and programs but also provides teaching tools they can use in their own classrooms. These include KidWind lessons and activities for elementary, middle, and high schools; the Museum

of Science's Sustaining Our Seas materials; and curriculum units from the National Energy Education Development (NEED) project.

We partnered with NEED to deliver our first teacher workshop in July 2024, providing curriculum materials, activity kits, and professional development credits to 15 participating educators from both classroom and community-based education programs.

Our workshop introduced participants to the Vineyard Wind project through site visits and meetings with fisheries, environmental, and engineering teams. We showcased our education materials, local partnerships, and strategies for integrating them into curricula. The training also included a field trip to Mass Maritime Academy to explore career pathways and opportunities for local students. An estimated 12,183 students were reached utilizing materials and curriculum presented at the workshop.



Teachers conducting experiments with NEED curriculum at workshop

We Empower Youth Leaders

Vineyard Wind launched a High School Ambassador program, bringing in local high school student leaders to promote awareness of the offshore wind industry, fostering a connection between the emerging industry, local community, and schools. This role plays a pivotal part in engaging and educating high school students about the opportunities within the renewable energy sector.

Our 2024 High School Ambassadors—Christopher Cecil, a senior at Greater New Bedford Vocational Technical High School, and Gladys Hernandez Nieto, a sophomore at Global Learning Charter Public School in New Bedford—worked with our team to develop educational materials, visit local schools to deliver presentations for students, and organize, promote, and lead events such as career fairs, workshop, and informational sessions.



“My internship with Vineyard Wind was an amazing experience,” said Gladys. “I enjoyed helping visitors understand wind energy and its importance. It was incredible to see people of all ages become excited about renewable energy and sustainability through our efforts. It also taught me how to communicate effectively and step out of my comfort zone.”

“I was brought onto the education team with the availability to explore other departments of the company,” said Cecil. “I loved working in education, as I could interact with the general public to educate everyone from all walks of life about this new amazing opportunity that has come to New Bedford. Additionally, on the development side, I was able to see how the infrastructure was built, operated and maintained. This internship has allowed me to grow into the person I am today by giving me the tools and knowledge to be a young professional leader.”

