



## REQUEST FOR APPLICATIONS

**Greentown Labs** requests applications from startups with 1) solutions for offshore turbine monitoring and ecological data collection, and 2) digital solutions to improve turbine efficiency and longevity, that are interested in commercializing within the offshore wind industry. Greentown Go Energize 2023 with Vineyard Wind and supported by MassCEC seeks to prepare leading startups for partnership and commercialization in the offshore wind industry through industry education and relationship-building with key players.

### **Program Benefits for Startups:**

- A platform to connect with and learn from offshore wind developers, NGOs, scientists, and other key players driving the burgeoning offshore wind industry in the United States
- \$70,000 in non-dilutive stipend funding
- An opportunity to engage with developers and other organizations to build collaborative pathways for future startup-corporate partnerships in the offshore wind industry
- Mentorship, networking opportunities, and educational programming from the Greentown Labs community of climatetech startup experts
- Exclusive access to Greentown Labs, Vineyard Wind, and MassCEC network resources
- Desk space and membership within Greentown Labs for the duration of the program

### What We're Looking For

A total of 40 gigawatts of offshore wind capacity is set to come online in the United States in the next decade.<sup>1</sup> Harnessing this abundant resource will increase grid reliability and diversity while reducing greenhouse gas emissions. With only 42 megawatts of offshore wind capacity currently operational, the United States offshore wind industry is poised for significant growth, but building the industry from the ground up will be a multi-party effort.

Construction of the 800MW Vineyard Wind Project, the nation's first utility-scale offshore wind project, is underway. As a landmark project in a highly dynamic industry that can be uniquely challenging for startups to enter, Vineyard Wind, along with Greentown Labs and MassCEC, aims to reduce these barriers to entry through industry education and relationship-building across relevant industry networks. Cutting-edge technology is key for offshore wind projects to be developed in an environmentally responsible manner while also delivering cost-effective electricity for customers.

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<sup>1</sup> <https://windexchange.energy.gov/markets/offshore>



We're looking for startups with a technology readiness level (TRL) of 3 and higher and with 1) solutions for offshore turbine monitoring and ecological data collection, and 2) digital solutions to improve turbine efficiency and longevity, that are actively commercializing or looking to commercialize within the offshore wind industry.<sup>2</sup> Technology that has been demonstrated or commercialized for a different market but is applicable in the offshore wind industry is eligible.

## Program Scope

The program scope includes both environmental and digital solutions that can be applied to the offshore wind industry.

### **1. Environmental Solutions**

Environmental solutions are critical to ensuring that offshore wind projects built off the coast of the U.S. are developed in a responsible manner. To ensure that environmental responsibility is maximized in this effort, we seek solutions that can provide real-time or near real-time environmental monitoring on the turbine and surrounding environment, limit disturbance to local ecosystems, and increase biodiversity.

- Turbine-level bird- & bat-deterrent systems
  - Systems to reduce perching and attraction of birds and bats on offshore wind turbines and associated structures
- Collision vulnerability and detection with bird-identification systems
  - Detection and tracking systems that can automatically record avian movement near offshore wind turbines, conduct species-level identification, collision detection, and/or provide local 3D tracking of species around the rotor swept zone (RSZ) to allow estimation of micro- and meso-scale avoidance, attraction, and collision rates
- Low-cost metocean / deep-water data-collection buoys
  - Solutions that can collect reliable, continuous metocean data sets under harsh environmental conditions, and which are robust to failures / planned maintenance
  - Solutions for data collection during site-assessment phases as well as during installation and operational phases
- Biodiversity around turbines/nature-inspired designs
  - Solutions to increase biodiversity of habitats around installed wind turbines and other related infrastructure
  - Natural and other materials that can be used to mimic the seafloor in areas surrounding cables and other infrastructure

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<sup>2</sup>As defined by the DOE. Use [this](#) link for guidance.



- Nature-inspired designs, including but not limited to cable and scour protection in proximity to wind turbine foundations and/or along cables and other infrastructure
- Drones for subsea inspection, mapping, biodiversity measurements / recording
  - Cost-effective solutions for inspection of scour protection, foundations, cables, and/or additional surveys that can mitigate disturbance to marine life

## 2. Digital Solutions

To optimize the offshore wind industry to deliver cost-effective electricity for customers and develop in an environmentally responsible manner, the industry will need an array of digital solutions. We seek both platform solutions that can enable efficient collection of critical environmental data as well as solutions that can be used to reduce turbine overengineering, unnecessary inspection and maintenance cycles, and premature decommissioning of components.

- Design-phase overengineering reduction and real-time condition-monitoring (digital twins)
  - Advanced simulation and remote monitoring tool to forecast and monitor the structural integrity of physical components of offshore wind assets
  - Real-time monitoring of structural integrity of offshore wind components

### Eligibility

- Submit your completed application through the online portal by April 4, 2023. **Do not submit confidential information in the application process.**
- Be available for virtual and in-person interviews after the application deadline, if selected for further rounds.
- Applicants are encouraged to apply from anywhere in the world.
- If you are selected as a Go Energize 2023 participant, a CEO/founder of your company will be required to attend all program events to enjoy full program benefits. Events will take place onsite in Boston, MA, with format subject to change to virtual, or a combination of virtual and onsite. A tentative timeline is as follows:
  - Kickoff Event: June 8, 2023
  - Workshop 1: July 13, 2023
  - Workshop 2: Aug. 24, 2023
  - Workshop 3: Oct. 5, 2023
  - Final Showcase: Nov. 16, 2023
- Greentown is committed to increasing diversity, maintaining an inclusive community culture, and creating a more sustainable planet for all. We welcome applications from founders and teams of all backgrounds, regardless of their ethnicity, race,



gender, religious beliefs, sexual orientation, age, marital status, veteran status, or whether they have a disability.

### Greentown Labs

Greentown Labs is a community of climate action pioneers working to design a more sustainable world. As the largest climatetech startup incubator in North America, Greentown Labs brings together startups, corporates, investors, policymakers, and many others with a focus on scaling climate solutions. Driven by the mission of providing startups the resources, knowledge, connections, and equipment they need to thrive, Greentown Labs offers lab space, shared office space, a machine shop, an electronics lab, software and business resources, and a large network of corporate customers, investors, and more. With incubators in Somerville, Mass. and Houston, TX, Greentown Labs is home to more than 200 startups and has supported more than 500 startups since the incubator's founding in 2011. These startups have collectively created more than 9,000 jobs and have raised more than \$4 billion in funding. For more information, please visit [www.greentownlabs.com](http://www.greentownlabs.com) or [Twitter](#), [Facebook](#), and [LinkedIn](#).

### Greentown Go

With a mission of decarbonizing the key greenhouse gas-emitting sectors, Greentown Go programs inject momentum and traction into startup-corporate collaborations, unlocking the power of climate solutions at scale. Greentown Go programs operate along five tracks, corresponding to the five major greenhouse gas-emitting sectors: Go Build (buildings), Go Energize (energy and electricity), Go Grow (food and agriculture), Go Make (manufacturing), and Go Move (transportation). Each track leverages the same proven, year-long Greentown Go framework that has delivered dozens of partnership outcomes to date, including pilots, licensing agreements, investments, joint development agreements, and more.

### About Vineyard Wind

Vineyard Wind LLC is an offshore wind development company seeking to build the first large-scale offshore wind energy project in the US, to be located 15 miles south of Martha's Vineyard. Vineyard Wind, based in New Bedford, Massachusetts, is 50 percent owned by funds of Copenhagen Infrastructure Partners (CIP) and 50 percent by Avangrid Renewables. For more information, visit [www.vineyardwind.com](http://www.vineyardwind.com).

### About MassCEC

MassCEC is a state economic development agency dedicated to accelerating the growth of the clean energy sector across the Commonwealth to spur job creation, deliver statewide environmental benefits and to secure long-term economic growth for the people of Massachusetts. MassCEC works to increase the adoption of clean energy while driving



down costs and delivering financial, environmental, and economic development benefits to energy users and utility customers across the state.

**Contact:**

- For any questions regarding program structure or curriculum, please reach out to Michela Grunebaum, Director of Programs, Greentown Go, [mgrunebaum@greentownlabs.com](mailto:mgrunebaum@greentownlabs.com)
- For any questions regarding your application or program scope, please reach out to Genevieve Fischer, Program Coordinator, Partnerships, [gfisher@greentownlabs.com](mailto:gfisher@greentownlabs.com)