

# OFFSHORE WIND YOUTH ACTION (OWYA)

Program Launch



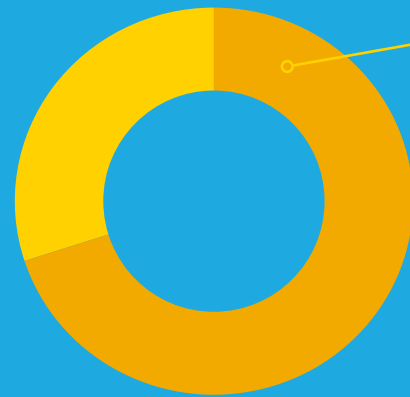
# WELCOME

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**Doreen Harris**  
President & CEO  
NYSERDA

**New York State is committed to a just transition and the most ambitious clean energy and climate agenda in the country**

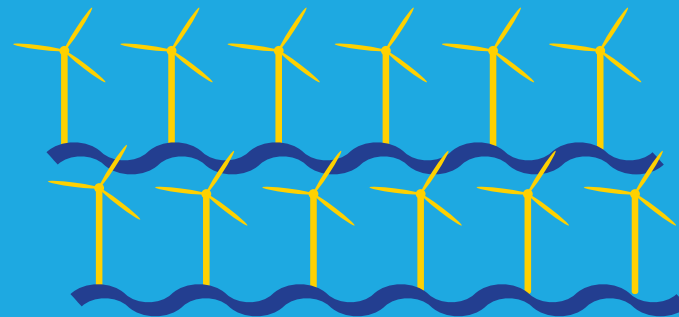
## New York State's Climate Act Commitments



**70%**  
of New York's  
electricity will  
come from  
renewable  
sources by  
2030

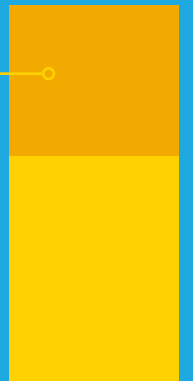


**ACHIEVE 100%**  
zero-emission electricity by 2040



**GENERATE 9,000 MW**  
of offshore wind by 2035

**40%**  
of the benefits of all  
climate and clean  
energy investments go  
towards disadvantaged  
communities



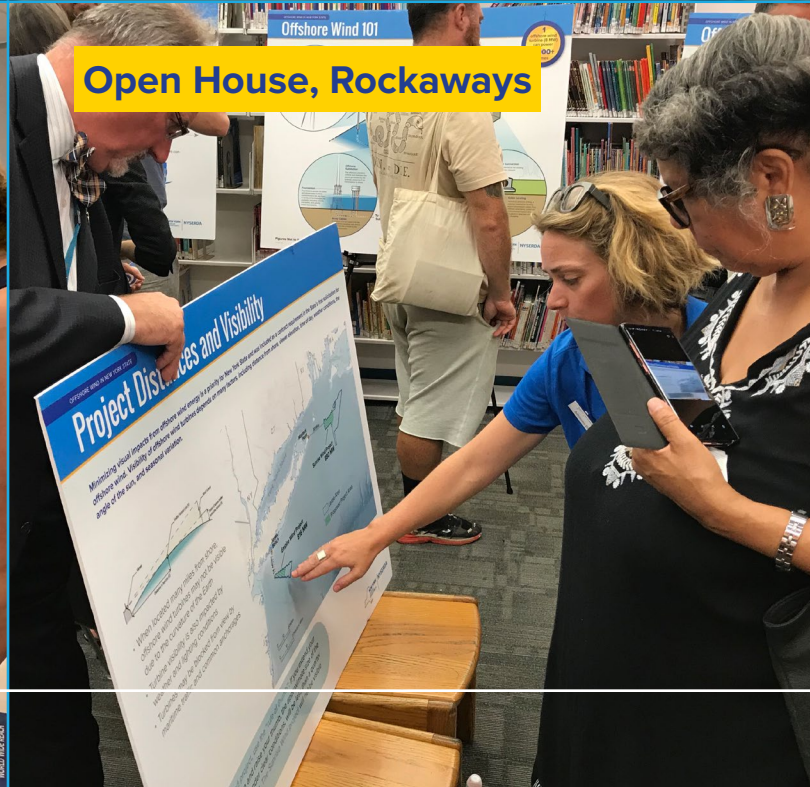
Open House, Melville



Supplier Forum, Albany



Open House, Rockaways



OWYA is part of a series of educational efforts by NYSERDA to engage New Yorkers around offshore wind and advance a clean energy future

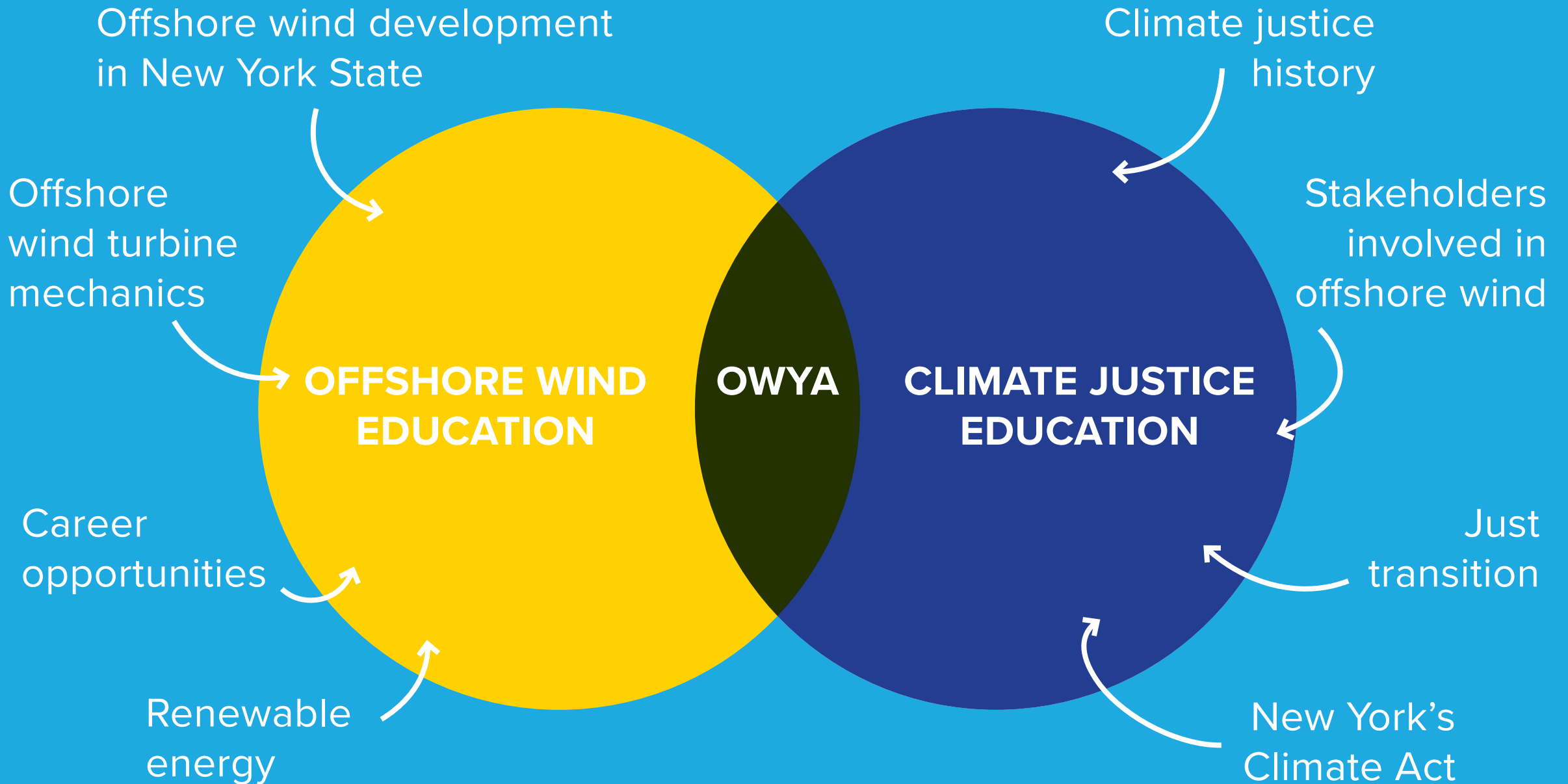
# WHAT IS OWYA?

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**Janna Herndon**  
Project Manager,  
Offshore Wind  
NYSERDA



**OWYA is a first-of-its-kind voluntary program engaging middle- and high-school aged students in the burgeoning world of offshore wind**



# OWYA consists of three lessons that support learning and action

# 1

**WHAT IS  
OFFSHORE  
WIND?**

# 2

**HOW DOES  
OFFSHORE WIND  
RELATE TO MY  
COMMUNITY & ME?**

# 3

**HOW CAN I GET  
INVOLVED IN  
OFFSHORE WIND IN  
NEW YORK STATE?**





**Lesson 1 defines renewable energy, discusses climate change, and explains offshore wind in New York State**

**Lesson 2 explores how offshore wind will interact with different communities and describes how renewable energy will contribute to climate justice in New York State**

**Lesson 3 provides pathways for young people to engage in offshore wind, whether advocating for climate justice, pursuing a clean energy career, or simply learning more**

“ My friends are interested in environmental justice. We want to know more about what actionable steps we can take to do something about it.



Climate change is important to me. We want to know what we can do to help because it's our future.



“ We glaze over the topic of renewable energy in school. I could see my technology after school club doing OWYA.



## WHAT IS OFFSHORE WIND?

Welcome to the Offshore Wind Youth Action program (OWYA, pronounced "Oh-Yeah"). Across New York State, curious young people like you are starting a journey to learn more about offshore wind because they care about climate change and clean energy, and how both will impact their futures.

**Want to know who else is participating in the OWYA program?** You are young people learning with a class, a club, a community group, your family, or even independently. Some of you are brand new to the topic of **climate change** while others may already be familiar with ways we can stop it, like switching to clean sources of energy. No matter where you are starting, we're excited that you're here with us to learn about offshore wind. Throughout this program, you will use social media and hashtags to connect with peers across New York State. **Use #OWYA on your favorite apps to see what others who care about climate change and clean energy are up to and share your learnings.**

### Some basics to start the conversation:

**What is climate change?** Climate change describes the increase in the world's average temperature over time due, mostly, to the burning of fossil fuels, like coal, oil, and gas for energy.\*

**What is clean energy?** Clean energy describes methods of turning natural resources that won't run out — like sunshine and wind — into electricity while minimizing negative impacts to our health and the environment.\*

*\*We'll learn more about these concepts later in this lesson!*

## WHAT IS OWYA?

OWYA is an educational program created by **NYSERDA**, short for New York State Energy Research and Development Authority. NYSERDA helps bring clean energy projects to New York. NYSERDA created OWYA to empower young people across New York State to learn about offshore wind as a tool to protect our planet from climate change and to get involved in the creation of clean energy in our communities. You'll learn a lot in these lessons and by the end, we hope you'll be excited about clean energy, and specifically offshore wind.



**Excited to jump in? Follow these inspiring climate change social media accounts:**  
[@climemchange](#), [@lonelywhale](#), [@chicksforclimate](#),  
[@intersectionalenvironmentalist](#), [@climatetown](#)

Credit: Javier Trueba



# WHO USES OWYA?

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## **CLASSROOMS**

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Science teachers  
Social studies teachers

## **MUSEUMS**

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Science museums  
Nature centers

## **INDIVIDUALS**

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Young people learning  
independently

## **AFTER SCHOOL CLUBS**

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STEM clubs  
Environmental clubs  
Technology clubs  
Social justice clubs

## **NONPROFIT PROGRAMS**

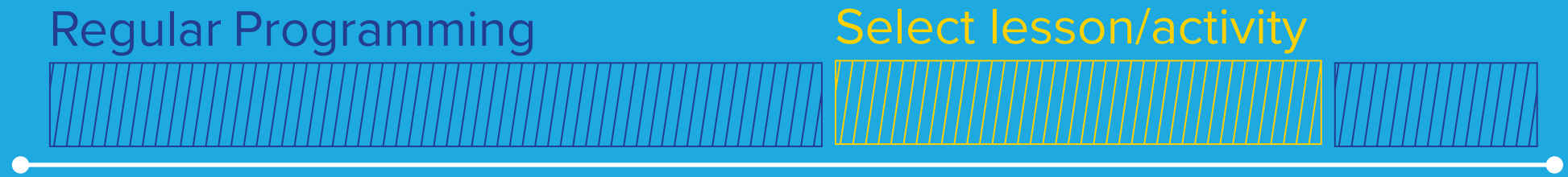
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Environmental nonprofits  
Community organizations  
Youth development  
programs/internships

**PACED  
SERIES**



**ONE-TIME  
EXPERIENCE**



## NYS DOE SOCIAL STUDIES STANDARDS GRADES 6-12

	LESSON	1	2	3
<b>A. GATHERING, INTERPRETING, AND USING EVIDENCE</b>				
A2. Identify, describe, and evaluate evidence about events from diverse sources (including written documents, works of art, photographs, charts and graphs, artifacts, oral traditions, and other primary and secondary sources).			●	
A3. Analyze evidence in terms of content, authorship, point of view, bias, purpose, format, and audience.			●	
A4. Describe, analyze, and evaluate arguments of others.		●		
A6. Deconstruct and construct plausible and persuasive arguments, using evidence.		●		
<b>B. CHRONOLOGICAL REASONING AND CAUSATION</b>				
B1. Articulate how events are related chronologically to one another in time and explain the ways in which earlier ideas and events may influence subsequent ideas and events.		●	●	
B2. Identify causes and effects using examples from different time periods and courses of study across several grade levels.		●	●	
B3. Identify, analyze, and evaluate the relationship between multiple causes and effects.		●	●	
B4. Distinguish between long-term and immediate causes and multiple effects (time, continuity, and change).		●	●	
<b>C. COMPARISON AND CONTEXTUALIZATION</b>				
C2. Identify, compare, and evaluate multiple perspectives on a given historical experience.			●	
C5. Recognize the relationship between geography, economics, and history as a context for events and movements and as a matrix of time and place.			●	
C6. Connect historical developments to specific circumstances of time and place and to broader regional, national, or global processes and draw connections to the present (where appropriate).			●	

The OWYA Educator Guide provides an overview of each lesson and explains how the program aligns with New York State Department of Education Social Studies and Science Standards



## READ ABOUT MARINE SPATIAL PLANNING

### HOW DO WE DECIDE WHICH MARINE AREAS ARE SUITABLE FOR OFFSHORE WIND?

Believe it or not, the ocean is a very busy place. In 2010 New York State, along with BOEM, undertook an ocean planning process to prepare for offshore wind.<sup>35</sup> Ocean planning processes, called **marine spatial planning**, bring together different groups of people who use the ocean for a variety of purposes: commercial and recreational fishermen, marine biologists, mariners (people who operate ships), people who live along the coasts, and the military, to name a few. BOEM also consults Tribal Nations as part of the marine spatial planning process. Many tribes hold traditional ecological knowledge and cultural values associated with their local environment and natural resources.

For the Shinnecock Nation on Long Island, for example, whales are a sacred and important part of their culture. Marine spatial planning aims to gather all the data and knowledge of an ocean area to plan projects like offshore wind farms responsibly. Decision makers need to know what wildlife species move through the area and when, where sensitive underwater habitats are located, which areas are most important for fishermen, where ships pass through, which areas are used by the military, and which areas hold cultural significance for Tribal Nations and other groups.

After gathering all this information, an offshore wind farm can be located in the best possible place to avoid conflicts with ocean users and wildlife. New York City is home to one of the largest ports in the country, along with thousands of wildlife species. It's a busy and important area for both humans and animals, which makes the marine spatial planning process all the more critical!

Scientists conduct many studies of the environment before, during, and after the creation of an offshore wind farm in order to protect wildlife and monitor any changes to the ocean ecosystem. While building an offshore wind farm may cause disruptions during construction, the costs of doing nothing are much worse. Climate change is causing the ocean to warm faster than any ecosystem on land. Warmer water temperatures are already seriously impacting ocean systems and wildlife by disrupting seasonal migration and feeding patterns and changing the actual chemistry of ocean water. Scientists agree that the benefits of developing offshore wind to slow climate change far outweigh the costs. Some challenges and solutions that planners might encounter when siting an offshore wind farm are listed on [page 34](#).

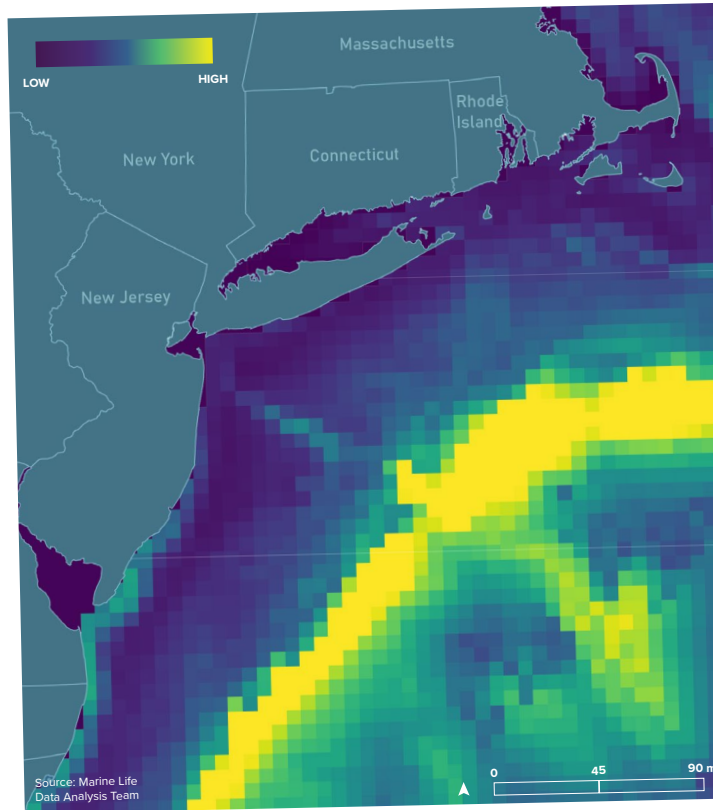
**Fun fact! Did you know there are six whale species and three dolphin species that live and migrate off the New York coast?**<sup>34</sup> You can even go whale watching out of Rockaway Beach, Queens with [Gotham Whale](#), a group that conducts research on New York's dolphin and whale populations. The New York Aquarium also has a [buoy](#) off the coast of Long Island that contains underwater microphones to pick up on whale songs so that scientists can identify which species are in the area.

# 2

## SITE PLANNING ROLE PLAY

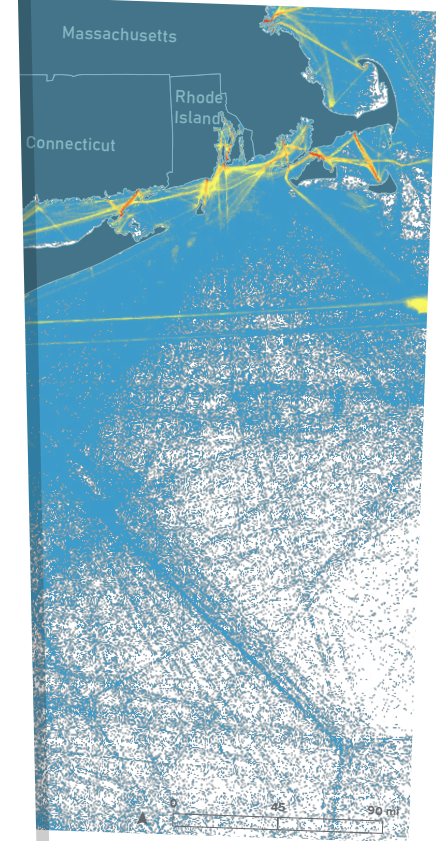
### SITE PLANNING: MARINE MAMMAL ABUNDANCE MAP

This map shows where marine mammals (whales and dolphins) are most commonly found along the New York coast. Notice that the yellow indicates areas with the most marine mammals. These are primarily migration routes. The darker blue indicates areas with fewer marine mammals. Keep in mind that these animals are not restricted to these areas and often travel great distances.



### VESSEL ROUTES MAP

This map shows vessel tracks in 2017. Blue lines represent all vessel tracks, while yellow lines represent higher traffic.



# 3

## GROUP DISCUSSION

### COMMERCIAL FISHERMAN

You are a fourth-generation commercial fisherman. Your family has lived on Long Island since the early 1900s and makes their living fishing for Atlantic herring, a small silver fish that can be eaten or sold for bait. This was once a very profitable fishery, but in recent years, the population has suffered due to fisheries management issues, overfishing, and because climate change has made ocean waters warmer. Your family and community has strong ties to the ocean and to this fishery, but it's become increasingly difficult to make a living. Now, an offshore wind developer wants to build an offshore wind farm off the Northeastern coast of the United States. You are concerned that this will further stress the Atlantic herring population, disrupt their habitat, and intrude on the ocean space your family has been fishing for decades. **You believe that we should transition to clean energy like terrestrial wind or solar but not offshore wind. You need to ensure that your fishing areas and the herring population aren't disrupted.**



### TOURISM OPERATOR

You are a tourism operator who runs a recreational fishing charter boat out of Staten Island. You make your living from taking tourists out on the water to go fishing. Your favorite fishing sites are the subway cars that the City of New York sunk off the coast in the early 2000s to create artificial reefs. Fish gather at these sites because they provide food and protection from the open ocean, and your customers always catch lots of fish there. Whenever it's a good fishing day, your customers usually leave you a bigger tip. You've heard about how offshore wind turbines also create artificial reefs over time, and that tourism operators in Rhode Island have seen an increase in business since the Block Island Wind Farm was built. You know New York is planning to develop offshore wind and hope to expand your business to accommodate both fishing and sightseeing tours out to the wind farms once they're built. **You support offshore wind and are excited about the possibilities it presents for your business.**

### MARINE MAMMAL CONSERVATIONIST

You are a marine biologist who specializes in dolphin and whale conservation. You work for the New York Aquarium studying the different dolphin and whale species found off the coast of New York, when and where they migrate, and how they are impacted by boat traffic and other ocean noise. Because New York has one of the busiest ports in the country, there is a lot of boat traffic in this region, which creates harmful noise for animals like dolphins and whales that need to communicate with one another. You are concerned that offshore wind construction will make the ocean even noisier, and that the wind farm might be built in the way of important migration routes, which would disrupt the animals that you've dedicated your life to protecting. At the same time, you know that climate change is a huge threat to all marine life, and know that we must reduce carbon emissions soon to protect the entire ocean ecosystem. **You support offshore wind but need to make sure that the dolphin and whale populations aren't disturbed throughout the process.**



## Offshore Wind Youth Action Program



The Offshore Wind Youth Action (OWYA, pronounced "Oh yeah") program is an initiative to empower young people across New York State to learn about offshore wind as a tool in our fight against climate change and to support clean energy action in their communities helping to deliver the Climate Leadership and Community Protection Act's clean economy and climate equity goals.

### For Students and Educators

The OWYA Program is comprised of three interactive lessons designed to engage middle- and high-school-aged students in the transformative world of offshore wind. Classroom teachers, club leaders, extracurricular educators, and internship program managers can implement OWYA to fit the unique needs of their groups. Young people can also participate in the program independently.

### Download the OWYA Materials\*

- [The OWYA Program \(PDF\)](#) – all the materials you need to participate
- [Educator Guide \(PDF\)](#) – to help teachers integrate OWYA into classroom curricula

\* For optimal viewing of the materials, select Two Page View or Two Page Scrolling in Adobe after opening the downloaded files.

### Other Resources

Development of the OWYA program kicked off with a public Listening Session on November 5, 2020. The webinar brought together leaders, activists, and advocates working at the intersection of youth leadership and environmental justice to explore the role of youth leadership in advocating for a just transition to a clean energy economy, including the development of offshore wind. [Watch the full recording here](#).

### Want to stay engaged? Sign up for the OWYA email list to receive updates from NYSERDA's Offshore Wind Team!

All information is assumed to be business information and is therefore not subject to the protections of the Personal Privacy Law, N.Y. Pub. Off. Law § 91 et seq. Therefore, it may be disclosed to third parties via the Freedom of Information Law.

\* required field

First Name: \*

Last Name: \*

Organization Name:

OWYA is ready now  
for classrooms,  
after school clubs,  
museums, and more

# QUESTIONS & ANSWERS

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## GET IN TOUCH

Visit  
[nyserderda.ny.gov/owya](https://nyserderda.ny.gov/owya)  
to learn more

