

CADMUS



NYSDERDA Great Lakes Wind Feasibility Study Public Feedback Session

JUNE 9, 2021
6:00 - 8:00 PM



Zoom Overview

- A. Use the **Chat** feature to provide comments, register to speak or send messages to the panelists
- B. At your time to speak the host will invite you to speak, you will see a pop-up box inviting you to speak and **unmute**
- C. To adjust your audio, select the **audio settings** button to open the menu
- D. To adjust the way you are viewing the slides and the panelists on video select **View Options**

The screenshot shows a Zoom meeting interface. At the top, a green bar indicates "You are viewing Alexis Lollar's screen" and a "View Options" dropdown menu is highlighted with a blue box and labeled 'D'. The main content area displays a slide from CADMUS titled "NYSERDA Great Lakes Study Public Feedback" with the date "JUNE 9, 2021" and time "6:00 - 8:00 PM". A pop-up window in the center, labeled 'B', contains the text "The host would like you to speak" and "If you choose to unmute, others in the webinar will be able to hear you. If the host or panelists decide to record, livestream, or archive the webinar after you unmute, your voice will be included." It has "Unmute" and "Stay Muted" buttons. At the bottom, the "Audio Settings" button is highlighted with a blue box and labeled 'C', and the "Chat" button is highlighted with a blue box and labeled 'A'. A "Leave" button is visible in the bottom right corner. The name "Alexis Lollar" is displayed on the right side of the screen.

Agenda

Great Lakes Wind Feasibility Study Public Feedback Session

6:00-6:05 p.m. Welcome & Introductions

6:05-6:15 p.m. Feasibility Study Overview

6:15-6:20 p.m. Webinar Overview

6:20-7:55 p.m. Comment Period

7:55-8:00 p.m. Closing

**New York is
committed to 100%
zero-emission electricity
by 2040**

most aggressive in the nation



NYSERDA

Public Service Commission Order

Published 10/15/2020

Directs NYSERDA to:

- > Conduct a feasibility study for wind energy generation in the Great Lakes
- > Commence work with 180 days of order within \$1 million budget



Fishing during sunrise on Lake Erie

Great Lakes Wind Feasibility Study

Public Feedback Session

Purpose:

To offer an opportunity for stakeholders in potential Great Lakes Wind to provide feedback on the Study and components

To ensure the scope of the Study includes relevant local knowledge of the Great Lakes and surrounding communities

To create a record of initial comments on the Study and incorporate topics of interest

NYSERDA Team:

Greg Lampman
Adrienne Downey
Abbey DeRocker
Sherryll Huber

Research Team:

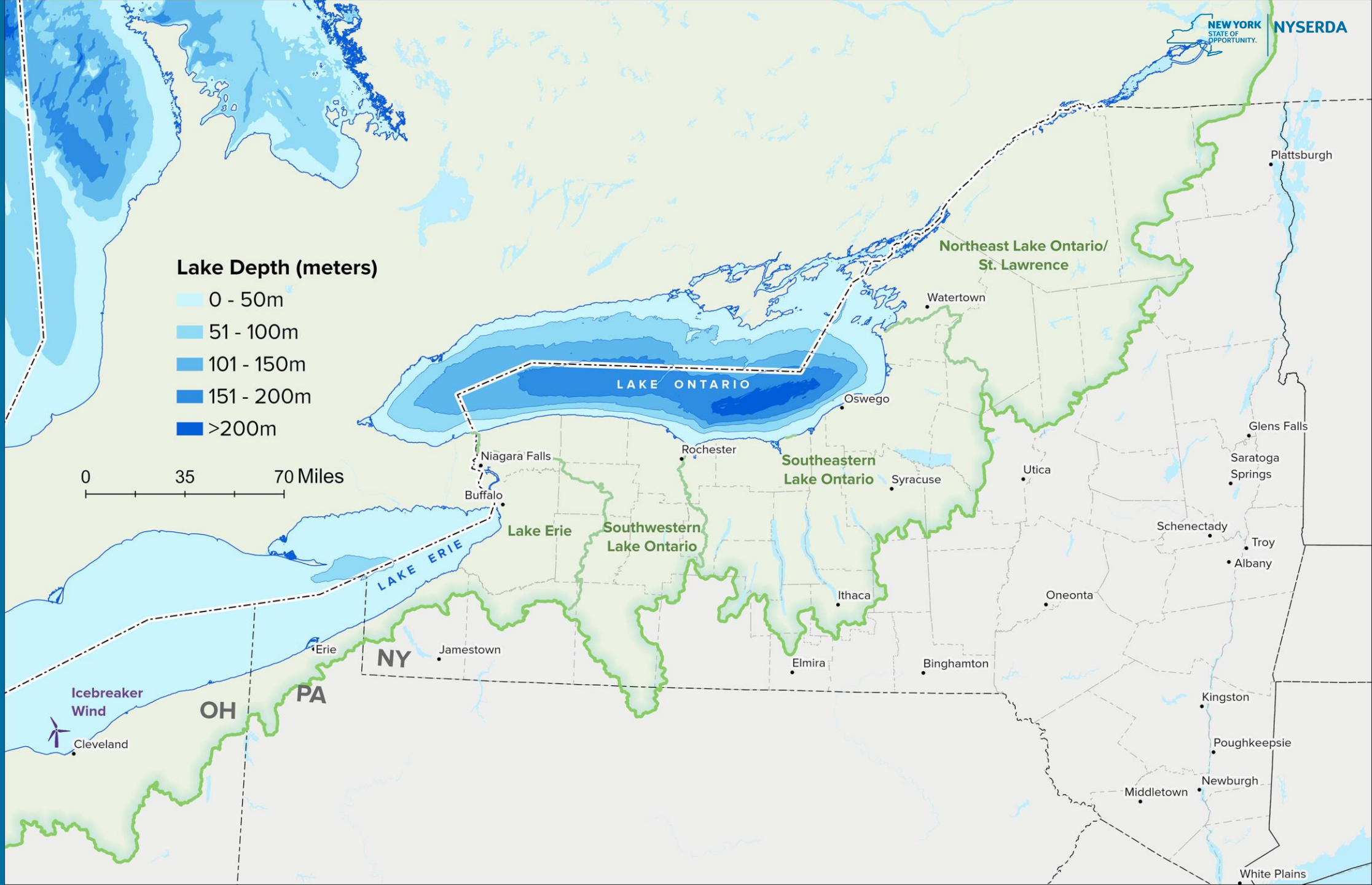
National Renewable Energy Laboratory (NREL)
Advisian Worley Group
Pterra Consulting and Brattle Group



Study Overview

Great Lakes Wind Feasibility Study

Great Lakes Wind Feasibility Study



Great Lakes Wind Feasibility Study

Study will include:

- > Technology (e.g., icing considerations) and timelines
- > Weather, windspeeds
- > Environmental conditions
- > Cost projections, power production estimates
- > Ports and related infrastructure
- > Economic development opportunities, jobs
- > Environmental justice
- > Regulatory and permitting processes
- > Resource users, wildlife and potential conflicts (e.g., wildlife, shipping, fishing)
- > NYISO Grid interconnection, energy deliverability
- > Public Feedback



Photo credit: Pori Offshore Wind Farm taken by Soumen Hyötötuuli courtesy of Ken Croasdale to NREL

Great Lakes Wind Feasibility Study

Technology, Costs, Economic Development

Contracted Principal Investigator:

National Renewable Energy Laboratory (NREL)

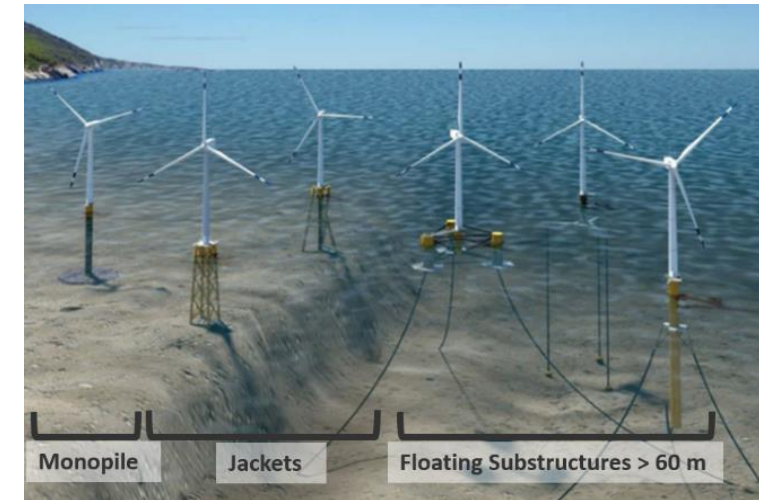
Feasibility Study Overall Coordination & Final Synthesis Report



Topics to be covered in Study:

Wind Plant Technology Review

- > Evaluation of site conditions
 - Characterization of Ice Climate
 - Lake bottom soil conditions
 - Bathymetry and waves
 - Great Lakes Wind Resource
- > Technology Options
 - Infrastructure: Assessment of Physical Constraints
 - Existing Technology Assessment
 - Future Technology Assessment
 - Geo-spatial analysis of gross energy capacity, local generation capacity, and physical site assessment



Source: NREL

Great Lakes Wind Feasibility Study

Technology, Costs, Economic Development

Topics to be covered in Study (Cont'd):

Costs and Cost Reduction Pathways and Production

- > Fixed and Floating Scenario Development
- > Costs and Sensitivity Study
- > Power Production Estimates

Economic Development and Workforce Opportunities

- > Jobs and Economic Development Impacts Modeling (i.e., JEDI model)
- > Workforce Assessment
- > Port Infrastructure Considerations

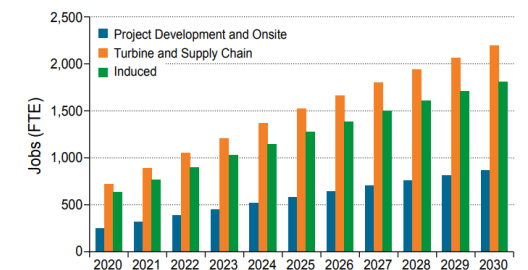


Figure 1. Estimated number of jobs supported by offshore wind deployment from 2020 to 2030 in the Great Lakes region (moderate scenario)

Great Lakes Wind Feasibility Study

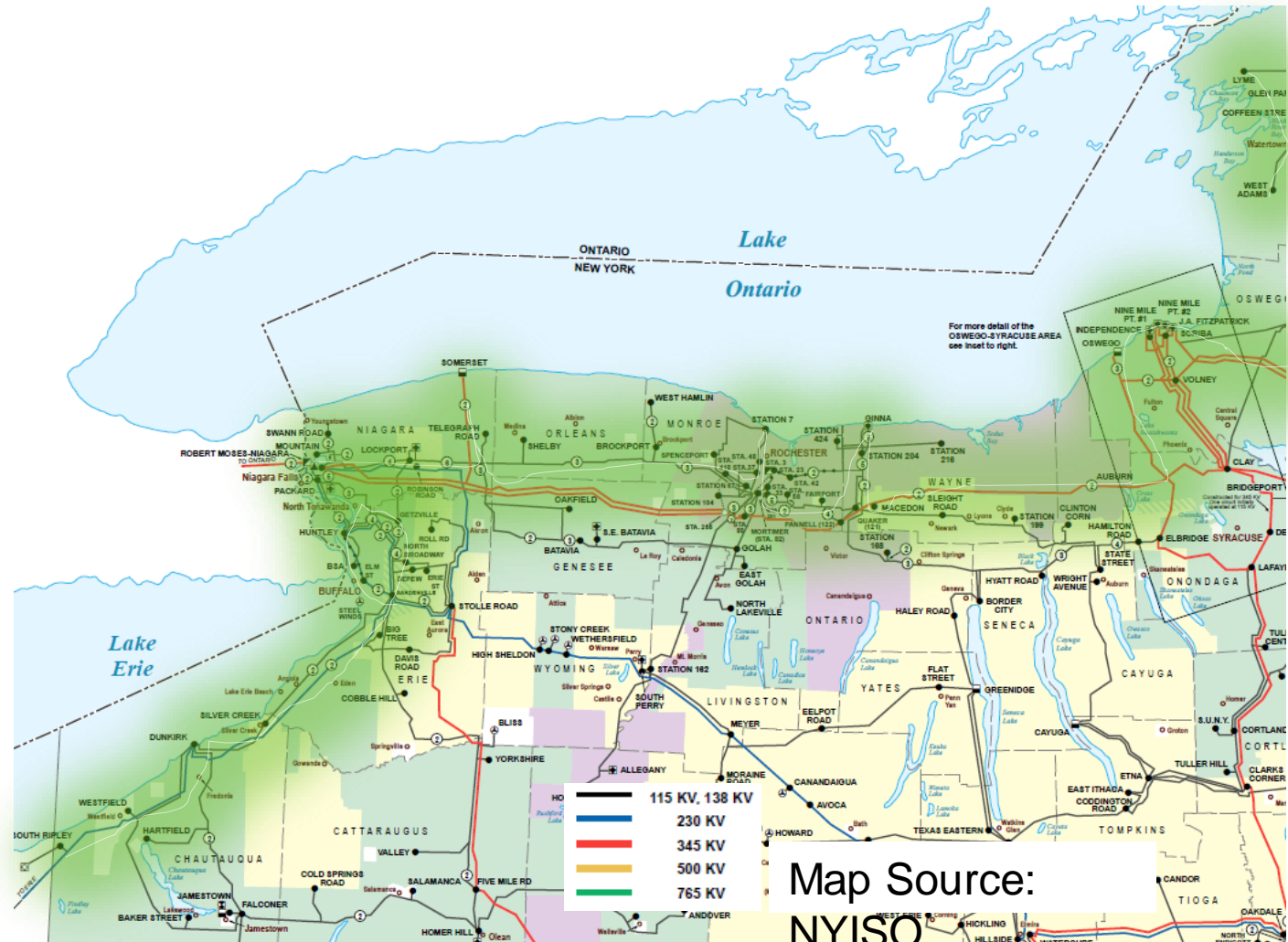
Electric Grid Interconnection

Contracted Principal Investigator:

- > Pterra LLC
- > Brattle Group

Topics to be covered in Study:

- > Feasibility of interconnecting of Great Lakes Wind resources to New York Electric Power System
- > Identify points of interconnection to the land-based power system
 - the capacity that can be connected
 - any congestion or curtailment risks
 - any needed electric transmission upgrades



Great Lakes Wind Feasibility Study

Permitting, Environmental, Viewshed

Contracted Principal Investigator:

Advisian Worley Group

Topics to be covered in Study:

Federal, State, and Utility Permitting Study

- > Develop a table to indicate the permit multi-state requirements
- > Permitting thresholds and findings
 - Wildlife
 - Habitat
 - Risks and opportunities created by authorization processes
 - Options that could creating efficiencies and reducing conflicts

Geophysical and Geohazards Study

- > Present site conditions
 - Active processes and interactions
 - Sediment transport
 - Offshore wind technology structure

Great Lakes Wind Feasibility Study

Permitting, Environmental, Viewshed

Topics to be covered in Study (Cont'd):

Relative Risks, Mitigations, and Benefits

- > Potential risks (wildlife, uses, communities)
- > Assessment of stressors, receptors, impacts, and mitigations
- > Historic/cultural areas, potential conflicts
- > Assessment of public health benefits

Visual Impact Study

- > Visualization map of potential Lake Erie wind
- > Visualization map of potential Lake Ontario wind



Public Input

Great Lakes Wind Feasibility Study

What we have heard so far

- > Communication preferences include email updates, website resources, and public feedback session
- > Interest in potential project details and technological solutions to ice floe and ice cover
- > Viewshed impact and concerns of lakeshore residents
- > Impacts to wildlife including fish and birds
- > Discussions with neighboring states, countries, and indigenous nations
- > Reaching rural communities
- > Legacy sediment pollution and impacts to fresh water supplies
- > Differentiation between offshore wind in the Atlantic Ocean and the Great Lakes
- > Interest in economic opportunities
- > Types of uses that are appropriate for public lands



Public Input

Great Lakes Wind Feasibility Study

How will public feedback be used?

- > Summary report from this session will be shared with Study researchers
- > Inclusion of topics of importance to be addressed under existing Study scopes or recommendations for more research
- > Summary of public feedback throughout the year will be shared with Public Service Commission and delivered with the Study



Webinar Overview

Purpose

Great Lakes Wind Public Feedback Session

- For stakeholders to **share verbal comment** with NYSERDA and community members on the Great Lakes Wind Feasibility Study
- To add input to the Study by ensuring topics that are important to you are covered within this Study
- This is a feedback session only
- All comments received this evening, and in writing for 7 days following the webinar, will be incorporated into **a summary report that will inform study next steps**
- Comments and questions are welcome throughout the year at greatlakeswind@nyserda.ny.gov

Comment Process

Great Lakes Wind Feasibility Study Public Feedback Session

- Over 24 people have pre-registered to make comments
 - Additional registrations are welcome in the chat
- Cadmus will call-on and unmute those preregistered to speak followed by those who indicate interest in the chat as time allows.
- Each person will have **up to 2 minutes**
 - If you have additional comments to make beyond your allotted time, please input those into the chat or send them to greatlakeswind@nyserda.ny.gov and we will capture them

Comment Etiquette

Great Lakes Wind Feasibility Study Public Feedback Session

- NYSERDA and Cadmus are **committed to creating an environment in which everyone is comfortable sharing and exchanging ideas with their neighbors** about the potential future of Great Lakes Wind
- Those speaking play a critical role in achieving this environment by **remaining respectful in the delivery of their comments**

Comment Period

2 minutes for comments

1 minute remaining

30 seconds remaining

Time expired – please wrap up

Closing

Public Resources

Great Lakes Wind Feasibility Study

- > Written comments for this report:
Due June 16, 2021 (7 days)
- > Email NYSERDA GLW Team:
greatlakeswind@nyserda.ny.gov
- > **Sign-up for email updates**
- > Website:
nyserda.ny.gov/Great-Lakes-Wind-Feasibility-Study
- > Additional Public Webinars on Study Progress
 - August 10, 2021 10:00am
 - October 20, 2021 3:00pm
 - Early 2022: Final Report Public Webinar



Young girls walking along a rocky beach on Lake Erie

Thank you

For more information, please contact:

NYSERDA Great Lakes Wind Team
greatlakeswind@nyserda.ny.gov



nyserda.ny.gov

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