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EMPIRE WIND 1

Preparing for Offshore Wind Cable Installation

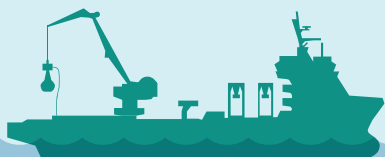
Empire Wind 1's renewable offshore wind power will be delivered to New York's homes and businesses through buried undersea cables. Cable installation and burial, scheduled for 2025, is a crucial milestone for the project that will deliver 810 megawatts (MW) of renewable energy to New York, playing a significant role in achieving the state's goal of 9,000MW of offshore wind energy by 2030.

Before Empire Wind can install the cables running between its turbines in the lease area, and connecting the whole system to shore, we need to clear obstacles blocking the path or that might damage the cables. This process, known as Route Clearance, involves a series of steps to prepare the ocean floor for safe and responsible undersea cable installation.

What's Down There?

Beneath the surface of New York City's waters, the ocean floor is scattered with natural obstacles like rocks as well as generations of man-made debris and refuse and a crisscrossing network of old and inactive undersea cables that once transmitted information from as far away as Europe. Previous construction teams and cleanup crews have found objects as strange and varied as a shopping cart, pair of roller skates, and even a grand piano.

Removing these materials is not only necessary for the safe and responsible construction of Empire Wind 1, but it also helps clean up New York's marine environment.



Quick Facts: Empire Wind 1 Undersea Route Clearance

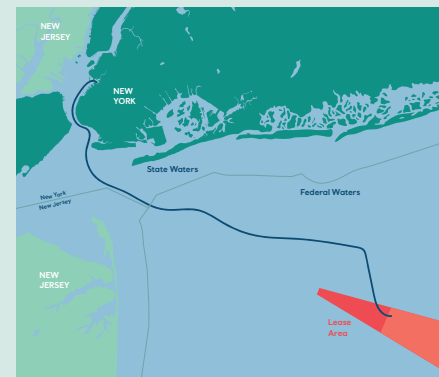
What: Removing or relocating undersea obstructions along the cable route.

Where: Within the Empire Wind 1 lease area and along the undersea cable route to South Brooklyn Marine Terminal.

When: Work is scheduled to begin in the lease area on July 10th, 2024, and along the cable route on July 30th, 2024, concluding in state waters by September 30th, 2024.

How: The lease area will be cleared using the GO Seeker vessel. Route clearance activities outside of the lease area, explained below, will all be performed by a single vessel, the M/V Shelia Bordelon, from a base of operations at Homeport Pier on Staten Island. Before any activities take place, a Local Notice to Mariners will be issued to inform when and where we will be working. Find out more at <https://www.empirewind.com/community/resident-notice/>

If you have questions or concerns about Empire Wind's Route Clearance process, we encourage you to contact us at empirewind@equinor.com.

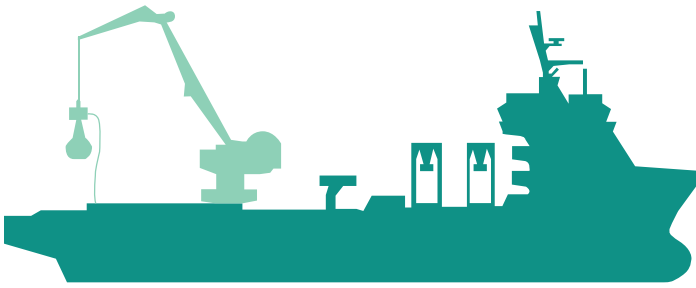


Permitting Review

Route clearance activities in federal waters are primarily overseen and approved by the Bureau of Ocean Management (BOEM) through a series of activity-specific plans, and in state waters by New York's Public Service Commission.

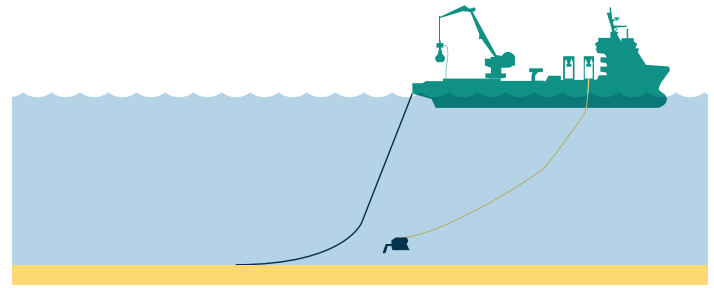
Three Methods of Cable Route Clearance

Three main methods are used to ensure the seabed is clear and ready for installation of Empire Wind 1's undersea cables.



Boulder Relocation and Debris Removal

Over 1,200 potential obstructions have been identified along the planned Empire Wind 1 cable route. These include boulders and man-made debris. Just like a giant claw arcade game, a crane on the M/V Sheila Bordelon ship will be used to move boulders and will follow applicable state and federal regulations regarding debris removal.

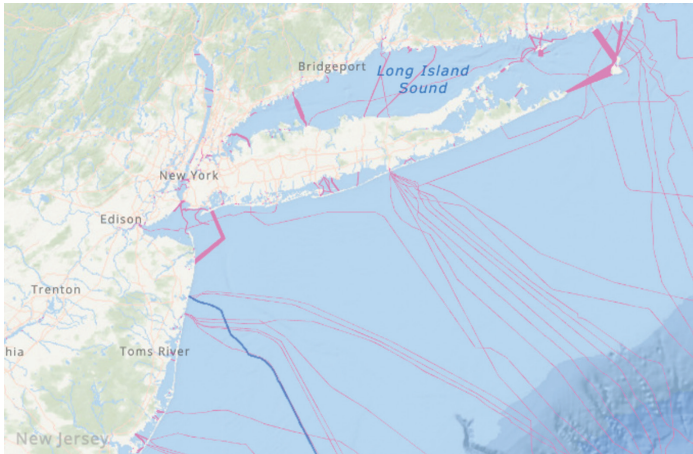


Pre-lay Grapnel Run (PLGR)

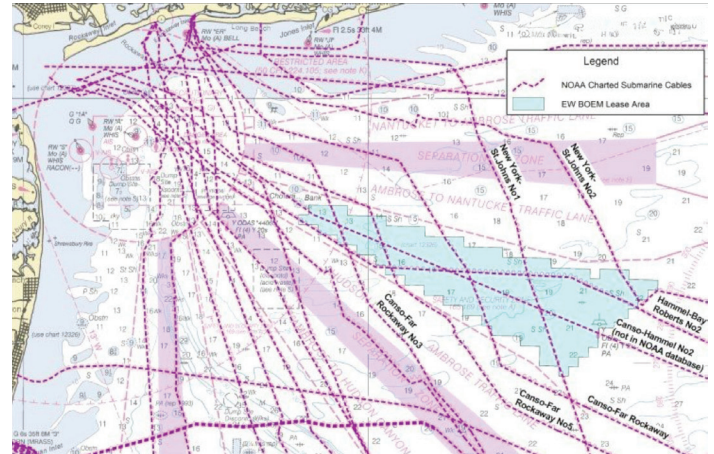
A specially designed narrow metal chain, known as a "grapnel train," is pulled across the ocean floor to make sure debris like wires, ropes and abandoned fishing gear are removed.

Out of Service (OOS) Cable Removal

A complex network of abandoned undersea cables currently lines the seabed off New York. These OOS cables may present obstacles for the EW1 cable burial, therefore small sections of cable will be cut and removed where necessary. Any ends of cut cable remaining on the seafloor will be secured to the seabed utilizing weights.



Active Undersea Cables (Graphic courtesy of NY Department of State)



Inactive Undersea Cables (Graphic courtesy of OceanIQ)

Did you know?

The first successful trans-Atlantic undersea cable was installed in 1866 to send telegraphs between Ireland and Canada. With each improvement in communication technology, numerous undersea cables have been installed off the coast of New York, many of which are no longer in use.

Have a question about Empire Wind?

Contact empirewind@equinor.com

To sign up for project updates, visit www.empirewind.com