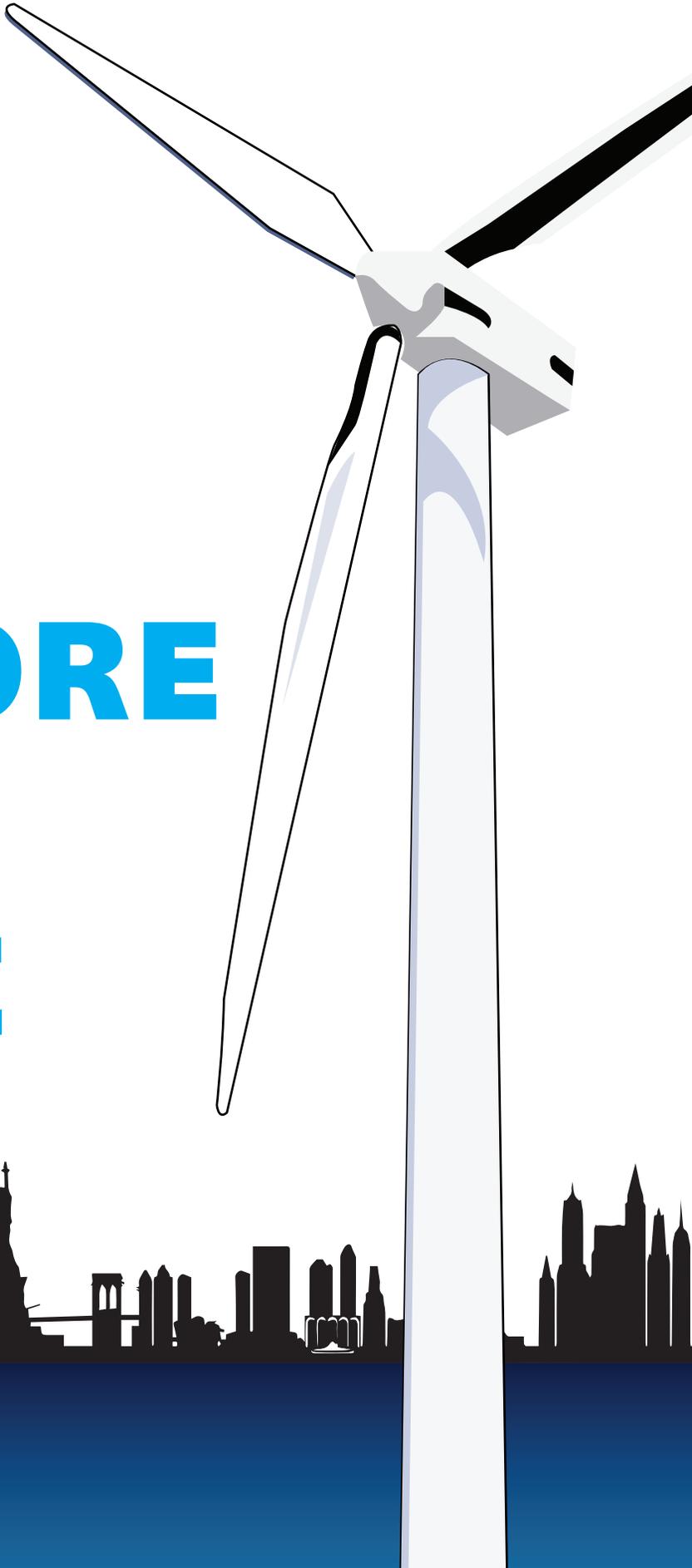




NEW YORK'S OFFSHORE WIND FUTURE



Long Island is on the front lines of climate change. Rising sea levels, extreme weather events, ocean acidification, and the loss of fisheries poses a real and immediate threat to our environment, coastal communities, local economy, and quality of life. Increased renewable energy production, along with efficiency measures, helps to speed our island's transition away from fossil fuels. Some of the strongest and most consistent winds in the country are off our coasts, and a series of offshore wind farms are slated to make New York a national leader in offshore wind over the coming decade.

In 2019 New York State passed the strongest climate law in the nation—the Climate Leadership and Community Protection Act (CLCPA). The CLCPA mandates NY achieve 70% renewable energy by 2030 and carbon-free electricity by 2040. Long Island will play a key role in the state's transition from fossil fuels to renewable energy. We cannot succeed in meeting these critical goals without offshore wind—the CLCPA mandates that NY procure 9,000MW of offshore wind by 2035.

Transitioning off Fossil Fuels

A significant challenge for New York in reaching our CLCPA goals is that there is a “tale of two grids”. Upstate uses 88% zero-emission resources but only represents 1/3rd of the energy load, while downstate is 2/3rd of the load and 69% fossil fuels.¹ New York City and Long Island present a unique challenge to achieving CLCPA goals and are almost entirely reliant on fossil fuels. Many of the outdated local peaker plants act as a direct source of air pollution to nearby disadvantaged communities.

Long Island has three legacy fossil fuel power plants, located in Northport, Port Jefferson, and Island Park, which provide 40% of the island's generation capacity for electricity. According to the Public Service Enterprise Group (PSEG)/Long Island Power Authority (LIPA) 2017 Integrated Resources Management Report, increases



in renewable energy and energy efficiency have greatly reduced the need for these plants and their use has declined. Currently, the E.F. Barrett plant runs 44% of the time, while the Northport plant and Port Jefferson plant run only 18% and 11% of the time, respectively.² While these plants were built with the potential to provide 40% of Long Island's energy, they are now only providing 22% due to increases in our clean energy mix and decreased demand.³

PSEG found that replacing these antiquated plants with renewables would be the more cost-effective solution. Long Island also generates power from a combined cycle power plant in Yaphank, known as Caithness, as well as over 30 additional fossil fuel "peaker plants".⁴ Peaker plants are

smaller fossil fuel power plants that were originally built to meet electricity needs during high demand, such as summer time. Long Island also purchases power from five underwater cable connections, which provide energy from upstate New York, New Jersey, New England.⁵

In order to fight climate change and ensure a just transition from fossil fuels to renewable energy, Long Island and New York City must invest in offshore wind. Due to space limitations, land-based renewable energy projects will not provide enough energy to retire our polluting power plants and replace them with clean renewables. The good news is that New York is already becoming a national leader in offshore wind.



Source: Climate Central

https://xs.climatecentral.org/#12/40.6882/-73.6290?scenario=extreme_p50

NEW YORK'S OFFSHORE WIND PROJECTS

New York State has released an Offshore Wind Master Plan that identifies several areas for offshore wind development off the coast of Long Island.⁶ These areas were chosen based on years of collaboration with stakeholders on environmental, maritime, economic, and social issues, as well as 20 studies, including wildlife surveys to minimize impact on birds, whales, and other marine species. For each wind farm that will be developed off Long Island, they must win a bid from NYS and conduct rigorous environmental review, including multiple opportunities for public comment, before a project begins construction. So far, New York State has selected five projects:

South Fork Wind Farm

New York's first offshore wind farm will be located 35 miles off the coast of Montauk and power 70,000 homes on the south fork of Long Island with renewable energy. This project was originally going to consist of 15 turbines generating 90 MW of power, but significant technological progress since the original project submission in 2015 will allow these turbines to provide an additional 40 MW of power to Long Islanders.⁷

Unlike the rest of Long Island, where energy demand is decreasing, energy demand on the south fork has increased. Long Island had to make the decision to build a new fossil fuel power plant or build the state's first offshore wind farm, coupled with battery storage. After years of overwhelming public support for wind, LIPA decided to choose the South Fork Wind Farm.

This project has been approved by the US Bureau of Energy Management and New York

State and broke ground in 2022. Construction is currently underway and the project is expected to be completed and delivering energy to Long Island homes in 2024.

Sunrise Wind and Empire Wind Farms

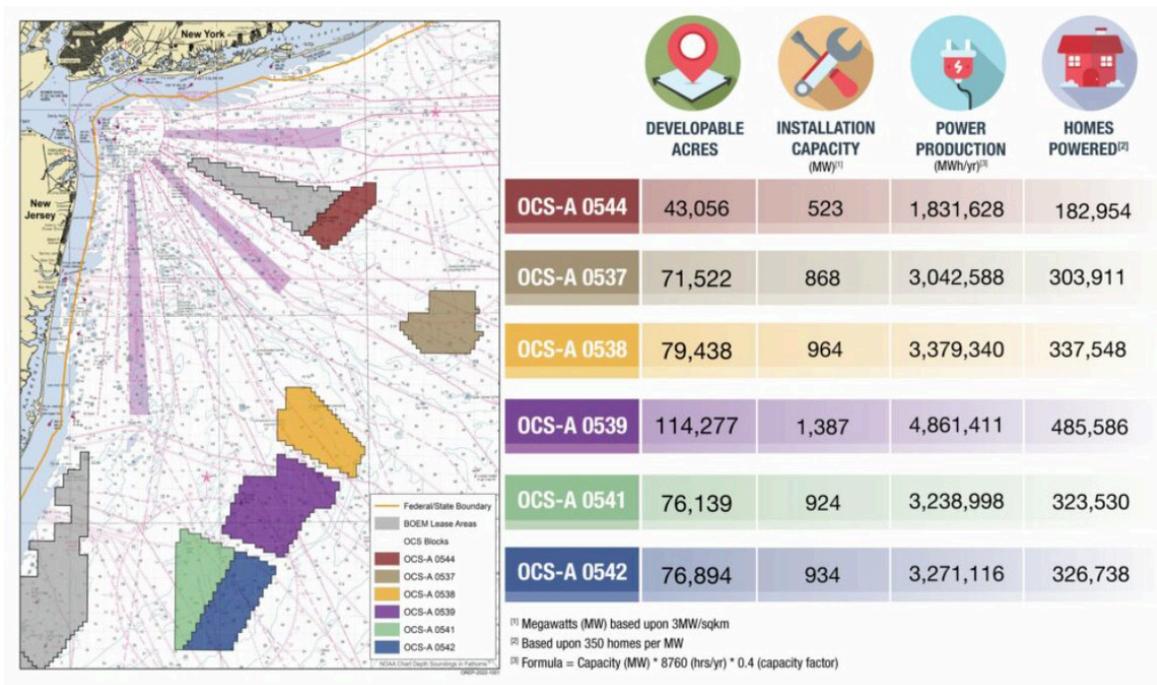
In 2019, New York State awarded bids to two offshore farms that will provide a combined 1,700 MW of wind power to Long Island and New York City.⁸ The Sunrise Wind Farm will be located off the south shore of Long Island. This project is due to begin construction in 2022 and will generate 924 MW of power for 600,000 Suffolk County homes. The energy will be delivered via a cable connection to the Holbrook substation.⁹

The Empire Wind Farm will be located approximately 20 miles off the coast of the Rockaways and generate approximately 800 MW of energy, which will also power 500,000 homes in south Brooklyn.¹⁰

NY Bight Wind Leases

In 2022, the Bureau of Ocean Energy Management’s (BOEM) held an auction of six new lease areas offshore New York and New Jersey, within an area known as the New York Bight. The six wind energy areas sold for a record \$4.37 billion after several intense days of auction.¹¹ The lease areas sold this year can accommodate at least 7 gigawatts of clean wind energy, enough to power millions of homes, and are critical to continuing to advance offshore wind projects that will allow New York to achieve 9,000 MW by 2035.

This lease auction demonstrated the intense interest and value of offshore wind and sets the stage for a multi-billion dollar investment in renewable energy projects, domestic supply chain, and regional ports and harbors, creating tens of thousands of good union jobs while addressing the climate crisis. New York State announced a third offshore wind solicitation in 2022 and in 2023 selected three additional projects that will power at least 2 million homes.



Attentive Energy

Attentive Energy, developed by TotalEnergies, Rise Light & Power, and Corio Generation, will generate 1,404 MW of renewable energy, enough to power 700,000+ homes. This project will be 54 miles offshore in the NY Bight and will connect into Queens at the Ravenswood Generating Station. Ravenswood, a former fossil fuel plant, will be repurposed to renewable

energy and provide significant health and air quality benefits for NYC residents.

Community Offshore Wind

Community Offshore Wind, developed by RWE Offshore Renewables and National Grid Ventures, will be located 64 miles offshore in the New York Bight and will provide power to NYC through an interconnection at Con Edison’s Brooklyn

Clean Energy Hub. This project will generate 1,314 MW which can power more than 500,000 homes.

Offshore, will be located 23 miles offshore and bring renewable energy to Long Island via a cable connection to the East Garden City substation. This project will generate 1,314 MW and power 650,000+ homes. In addition, this project will help strengthen and expand Long Island’s electricity grid, which needs significant upgrades.

Excelsior Wind

Excelsior Wind, developed by Vineyard

Project	Capacity	Location	Review Process	Completion
South Fork Wind Farm	130 MW 70,000 Homes	35 miles off Montauk, connects to East Hampton	Approved by BOEM	Operational in 2024
Empire Wind 1	800+ MW 500,000 Homes	20 miles off the Rockaways, connects to South Brooklyn Marine Terminal	Federal review launched in 2021	Expected to be operational by 2026
Sunrise Wind	924 MW 600,000 Homes	30 miles off Montauk, connects to Holbrook	Federal review launched in 2021	Expected to be operational by 2026
Attentive Energy	1,404 MW 700,000+ Homes	54 miles offshore in NY Bight, connects to Ravenswood in NYC		Expected to be operational by 2030
Community Offshore Wind	1,314 MW 500,000+ Homes	64 miles offshore in NY Bight, connects to Con Ed’s Brooklyn Clean Energy Hub		Expected to be operational by 2030
Excelsior Wind	1,314 MW 650,000+ Homes	23 miles offshore in NY Bight, connects to the East Garden City substation on LI		Expected to be operational by 2030

Growing the Green Economy

In addition to selecting offshore wind projects, New York State also announced significant investments in infrastructure and education that will help spur our regional economies. A key component of New York’s transition to offshore wind is investing in manufacturing, installation, operations and maintenance of these turbines, which will

ensure the state becomes a hub of offshore wind development and create an estimated 10,000 local, green jobs.¹² Some of the key offshore wind infrastructure investments include:

- Capitol Region**
 The first offshore wind tower manufacturing facility in the US will be developed at the Port of Albany. This facility plans to produce 150 towers

each year, bringing the offshore wind industry to the Capitol region and creating 500 local jobs.¹³ Just south of Albany, the Port of Coeymans has also been chosen to be a manufacturing facility for offshore wind components.

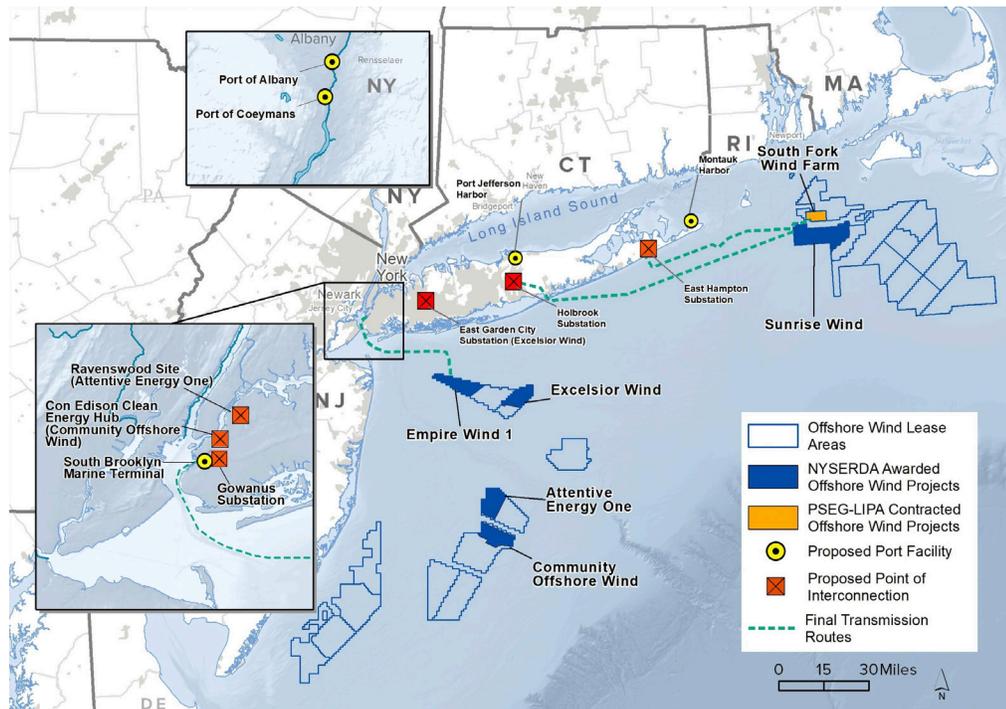
- **New York City**

The South Brooklyn Marine Terminal in Sunset Park is set to be another major offshore wind hub and will house the largest offshore wind port in the nation. The SBMT, which will specialize in assembly, operations and maintenance of the turbines, and is projected to create over 1,200 jobs based in the waterfront environmental justice community.¹⁴

- **Long Island**

New York's first offshore wind operations and maintenance facility is being developed in East Setauket, and Port Jefferson is slated to be home to the nation's first service operations vessel. The vessel is needed to perform operations and maintenance on offshore turbines and will be the first one to carry the US flag. The Port Jefferson port and East Setauket facility will create approximately 100 local jobs combined.¹⁵

Long Island is also receiving significant investments in education and workforce development programs to ensure New Yorkers benefit financially from the emerging offshore wind industry. Suffolk



County Community College is home to a \$10 million National Offshore Wind Training Center, which will help create a skilled workforce for the offshore wind industry. In 2021, Governor Cuomo also announced plans to launch a \$20 million Offshore Wind Training Institute with plans to train and certify 2,500 workers. The Institute will be a partnership between SUNY Farmingdale and Stony Brook University.¹⁶

New York's offshore wind farms combined are expected to produce 10,000 local green jobs. New York's leadership will not only create good jobs and boost regional economies, it will also lead to significant health and community benefits. These offshore wind projects will allow for the phase out of polluting fossil fuel plants in Queens and Nassau County, leading to improved air quality and \$1 billion in health impact benefits.¹⁷ The progress New York is continuing to make on offshore wind will result in substantial improvements in our environment, our health, and our economy.

About Wind Works

Wind Works New York is a coalition of environmental, labor, faith-based and community groups. We are a growing force behind educating the Long Island community on the benefits of renewable energy, particularly offshore wind. This coalition formed in 2020 to support responsibly sited offshore wind farms off the coast of Long Island and foster public engagement in the ongoing environmental and technical review processes for these critical projects.

Wind Works New York believes that public understanding of offshore wind and support for individual wind farms is critical to meeting New York's climate change goals and transition our island away from fossil fuels. While some of our core coalition members have been at the forefront of the fight for offshore wind on Long Island for over a decade, many of our key members have mobilized in response to the current need for offshore wind projects that hold the promise of finally bringing clean, renewable wind energy to our communities. Please visit windworksny.org for more information and to receive updates on these offshore wind projects.

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