



Offshore Wind

Deepwater Wind Opens Massachusetts Office



US offshore wind developer Deepwater Wind opened its Massachusetts office at the New Bedford Marine Commerce Terminal on Friday, 10 February.

Feb. 13, 2017

Last year, Massachusetts' Governor Charlie Baker signed into law a bill which requires utilities to competitively solicit and contract for approximately 1,600MW of offshore wind by 2027.

Following the passing of the new legislation, Deepwater Wind appointed Matthew Morrissey as head of the company's operations in the state.

In September 2016, Deepwater Wind, together with DONG Energy and OffshoreMW, signed a letter of intent to lease the New Bedford Marine Commerce Terminal and use it as a base for future offshore wind projects in the state.

The company reportedly plans to use the New Bedford Marine Commerce Terminal for the development of the Deepwater ONE project, which would be built in phases over time, supplying power to both southern New England and eastern Long Island.

In January 2017, the Long Island Power Authority (LIPA) approved a 20-year power purchase agreement for the 90MW Deepwater ONE South Fork wind farm which represents the first phase of the Deepwater ONE development.

The South Fork project is expected to enter construction phase in 2019, with full commissioning scheduled for 2022.

Rhode Island-based Deepwater Wind is the owner and operator of the 30MW Block Island wind farm, the nation's first operating wind farm.

Our View: Deepwater Wind establishes roots in New Bedford

Sunday

Posted Feb 12, 2017 at 2:01 AM

The view from the fifth-floor offices of Deepwater Wind in downtown New Bedford encompasses the North End, across the river to Fairhaven, through the hurricane barrier and beyond to the horizon of Buzzards Bay. Cutting the ribbon at the office on Friday marks a milestone on a journey destined to go beyond what merely the eye can see.

Educational resources have been acting in the SouthCoast space of offshore wind, from high schools to graduate work. Supply chain managers and turbine manufacturers have begun planning. Developers have used New Bedford Harbor as a base of operations to begin preliminary offshore geologic studies.

But Friday's ribbon cutting marks the offshore wind industry's first private investment in New Bedford.

A couple thousand square feet of office space may not register as more than a blip on the city's data sheets for downtown occupancy. From the perspective of those who occupy the office, it represents another patient step forward toward a transformative opportunity for the city, region and commonwealth alike.

It is no surprise that Deepwater Wind would be the first into New Bedford. The Rhode Island company, based in Providence, operates the first offshore wind farm in the U.S., just south of us, off of Block Island. Deepwater owns one of the leases south of our Islands, and is developing plans for wind farms off Rhode Island and Long Island.

Matthew Morrissey, Deepwater's vice president for Massachusetts, is a New Bedford native who launched the city's Wind Energy Center, worked closely with the state's Clean Energy Center to establish the heavy-lift terminal in the South End, and contributed a not-insignificant amount of leadership to the development of the energy bill passed into law last summer. That work earned Mr. Morrissey recognition along with Somerset Rep. and Speaker Pro Tempore Patricia Haddad as SouthCoast's Man and Woman of the Year.

The establishment of a corporate office in New Bedford at this time comes because these several pieces — and many others — have worked toward common goals among many players.

They were not accidental or coincidental, as the complexities of business and politics

today make success less likely unless approached with cooperation, creativity and a commitment

to networks.

The birth of an industry is fascinating to observe. The broad public and private partnerships needed to get Deepwater to this point are a reflection of what is needed at every level for resiliency and longevity. Continued support from local and state politicians is bolstered by educational commitments from every campus in the UMass system. Manufacturers are looking at larger supply chain issues, and leaders of all stripes are cooperating.

Even though the certainty of federal policy is less settled today than it was under the previous administration, the steady, organic growth we see so far enhances sustainability, creates a center of gravity, and opens the path for other leaseholders, and eventually, manufacturers, marketers and financiers, to take advantage of the undeniable natural and human resources available here.

Expertise in offshore wind will continue to grow, first as New Bedford imports the industry standards from Europe, and second as the unique American offshore wind market takes shape.

Soon, New Bedford, and Deepwater, will be exporting expertise, to Long Island and points south.

Deepwater Wind opens Massachusetts office in New Bedford



Matt Morrissey, left, Deepwater Wind vice president for Massachusetts, listens as Deepwater CEO Jeff Grybowski speaks Friday at opening of Deepwater's new Massachusetts headquarters in New Bedford. [JENNETTE BARNES/STANDARD-TIMES/SCMG]

Friday

Posted Feb 10, 2017 at 8:05 PM

Updated Feb 10, 2017 at 8:05 PM

By **Jennette Barnes**

NEW BEDFORD — Deepwater Wind opened its Massachusetts office in New Bedford on Friday, on the top floor of an historic building overlooking the port from which the company hopes to do nothing less than launch the state's offshore wind industry.

As invited guests eyed the lobster rolls and waited for officials to speak at the opening celebration, Mayor Jon Mitchell said in an interview that the newly renovated office represents the industry's first private investment in New Bedford. Another wind-related investment, the \$113 million New Bedford Marine Commerce Terminal, was funded by the state.

Putting the office in New Bedford instead of Boston or somewhere else is important because the city wants to attract the full scope of the industry, as it has with fishing, rather than just the staging of construction via the terminal, he said. New Bedford wants developers and capital, and for that, it must compete with any number of cities.

"We don't want this to just be the back office of the industry," he said.

Rhode Island-based Deepwater Wind developed the first offshore wind project in the United States, located about three miles off Block Island. It began operating in December with five turbines.

Now, the company and two others — Vineyard Wind (previously OffshoreMW) and DONG Energy, whose proposed project is called Bay State Wind — are anxious to get into the Massachusetts market, particularly in light of a new law pushing for more of the state's energy to come from offshore wind. Signed by Gov. Charlie Baker in August, the law requires utilities to buy long-term contracts for at least 1,600 megawatts of power from offshore wind by 2027.

Asked to what degree the three companies are competing or cooperating, Mitchell said they have the same policy goals. Indeed, all are partners in the advocacy group Offshore Wind: Massachusetts, founded by Matthew Morrissey, former director of the New Bedford Economic Development Council.

Likewise, each company has its own lease on a separate piece of ocean. "Where the competition will ripen will be over the procurement of the first power-purchase agreement," Mitchell said. A competitive bidding process is scheduled to start in July.

During the speaking program, Mitchell heaped praise on Morrissey, who is now the Deepwater Wind vice president for Massachusetts, calling him the state's "offshore wind evangelist."

Mitchell also spoke highly of CEO Jeff Grybowski, saying his work developing offshore wind turbines took know-how in politics, finance, science, and technology, plus a lot of guts.

"What he has done is historic," and New Bedford benefits just by association with the company, the mayor said.

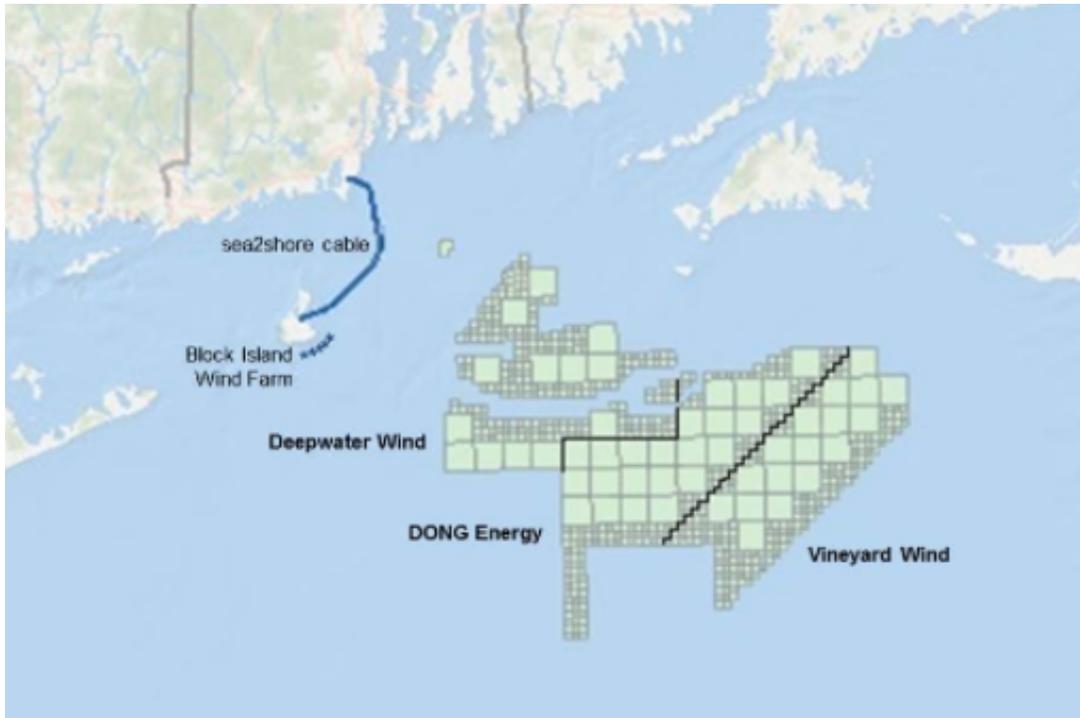
Grybowski said he hopes to build a string of projects in the United States in the coming decade, and much of the work will happen in southern New England.

"We could've gone to other cities in this state, some of which are a bit farther to the north, where some of our competitors are located," he said. "But we chose not to go to that city. We chose to come here to New Bedford because this industry will be centered around the SouthCoast."

In addition, he said, "We need to be close to important constituents, like the fishing industry — folks who live and make their livelihoods from the ocean, just as we do." Supporters in attendance included Miles Grant, director of communications for the National Wildlife Federation. He said he considers offshore wind "the most wildlife-friendly form of energy there is."

CommonWealth

POLITICS, IDEAS & CIVIC LIFE IN MASSACHUSETTS



S. Coast lawmakers push offshore wind project

Lobby Baker administration on clean energy procurement



PATRICIA HADDAD and



MICHAEL RODRIGUES

Dec 14, 2017

The following is a letter sent to Matthew Beaton, the secretary of energy and environmental affairs, on December 12 by Rep. Patricia Haddad of Somerset and cosigned by Sen. Michael Rodrigues of Westport.

AS THE SECTION 83D Massachusetts Clean Energy RFP selection process is coming to a close, I wish to offer my observations and insight as a primary author of the legislation. This law has given Massachusetts the opportunity to alter our energy future and allow the Commonwealth to continue its leadership on these issues.

For over half a century, my community of Somerset had been home to two of the four coal-fired power plants in Massachusetts. Both Brayton Point and Montaup have now closed. At one time, they provided a significant portion of the tax base in Somerset and our community became dependent on the substantial revenues generated by these facilities. Due to the recent closing of Brayton Point, our community must rely on the future development of that site to help offset the lost tax revenue.

Because of this need, in late 2014 I hosted a series of stakeholder discussions on the issue of energy, inviting all stakeholders in the process to discuss policies to not only replace much needed tax revenues in Somerset, but also to plan for a clean energy future in Massachusetts. Those discussions led to the Legislature passing a mandate requiring the purchase of 1,200 megawatts of renewable energy and another 1,600 megawatts specifically for offshore wind.

Although I did not initially anticipate it, I was excited to learn of Deepwater Wind's creative decision to submit a bid in the 83D procurement process. Deepwater Wind's proposal, called Revolution Wind, is for 144 megawatts, with a potential of as high as 288 megawatts. I've been told that the Revolution Wind bid, which includes transmissions costs, has been priced extremely competitively.

There are a number of reasons I believe it is in the state's interest to strongly consider the Revolution Wind proposal. Revolution Wind provides power to the South Coast of Massachusetts where the need is the greatest. With the recent closing of Brayton Point and the imminent closing of the Pilgrim Nuclear Power Plant, nearly 2,500 reliable megawatts of energy will no longer be available to the South Coast. Electricity coming from Canada would have to travel through expensive and lengthy transmission lines to reach our area in southeastern Massachusetts. However, the Revolution Wind project is proposed to be built off the South Coast of Massachusetts, just 20 miles offshore, making it a reliable, cost-effective, and home-grown energy resource.

The Revolution Wind project will create important economic opportunity for Massachusetts. It will generate over \$250 million in positive economic impact in the region, including 700

construction jobs and 60-80 permanent operations and maintenance jobs. If Deepwater Wind's proposal is chosen to participate in the Section 83D procurement, it will be joined by a second project through the 83C process in 2018. There are significant benefits in having two projects under construction simultaneously. With two developments so closely aligned, there will be far greater opportunities for local firms to compete and participate in the industry thereby decreasing costs for ratepayers through competition and encouraging local investment in places like Somerset.

Revolution Wind creates jobs and competition in Massachusetts while helping to maintain the Commonwealth's leadership position in offshore wind. Since the passage of our 2016 landmark energy law, many northeastern states have demonstrated interest in offshore wind. New York has committed to 2,400 megawatts by 2030. New Jersey's governor-elect Phil Murphy, the former ambassador to Germany who has seen first-hand the re-industrializing of German ports through offshore wind, is pledging 3,500 megawatts by 2030. There is enormous benefit in our state by moving quickly to maintain our nation-leading position and capture as much of the economic development activity as possible in this increasingly competitive environment. Selecting Revolution Wind in the Section 83D procurement signals to the global marketplace that Massachusetts is serious about this industry.

For a fraction of the overall solicitation, the benefits are enormous. Large-scale hydropower and land-based wind farms from the northern reaches of New England and Canada will supply the majority of the renewable energy in this procurement. However, I am not aware of any other bidder in this RFP who will create jobs in Massachusetts. The Revolution Wind project will allow the industry to develop in Massachusetts while employing people here in the Commonwealth. We will see competitively priced offshore wind energy delivered to where we need it the most while stimulating economic development in a region that will certainly benefit, my own community included. Finally, by accepting the Revolution Wind project's bid in the 83D RFP, we will accelerate the growth of the industry by allowing multiple projects to develop simultaneously.

For all of these reasons, I encourage you to consider Deepwater Wind's bid for the Revolution Wind project to be a participant in the Massachusetts Clean Energy RFP. Massachusetts has consistently been a pioneer and leader in many innovative and exciting areas and I know offshore wind will be another. I thank you for your attention to this important matter and please do not hesitate to contact me should you wish to discuss further.

The Boston Globe

Derrick Z. Jackson: The competition is heating up for offshore wind



By Derrick Z. Jackson

NOVEMBER 16, 2017

Massachusetts became a national leader in offshore wind energy a decade ago when the sole big project on the horizon was the never-built 130-turbine, 468 megawatt Cape Wind in Nantucket Sound. But in just the last two and a half years since utilities pulled the plug on Cape Wind, competition has exploded into a boomtown frenzy. Virtually all the top offshore wind companies in Europe are jockeying for US projects up and down the East Coast, and many states are threatening to strip Massachusetts of its front-runner status.

Last month, at an offshore wind conference in New York City, New York Lieutenant Governor Karen Hochul said her state would be “the preeminent global hub for the next generation of growth in this industry.” In Maryland, where proponents hope to transform docks near Baltimore, developer Paul Rich told the Baltimore Sun, “This will be the Silicon Valley of

industrial activity for the offshore wind industry for the whole East Coast.” Virginia officials also invoke the image of Silicon Valley, as the stakes have become huge almost overnight.

Last year, Massachusetts created the nation’s top mandate for offshore wind, 1.6 gigawatts by 2027. But this year New York announced a goal of 2.4 gigawatts by 2030, and New Jersey Governor-elect Phil Murphy pledges 3.5 gigawatts by 2030. Maryland and Virginia have approved projects, and the Trump administration, despite its pro-coal rhetoric, sold an offshore wind lease area off Kitty Hawk capable of producing 1.5 gigawatts of energy.

Based on state, federal, and campaign estimates, that adds up to enough juice to power 4.5 million homes. The Obama administration projected that it was realistic for the United States to generate 86 gigawatts of offshore wind by 2050, powering tens of millions of homes. The exponential growth potential of offshore wind has become more economically realistic and politically salient for several reasons. One is that, unlike Cape Wind’s site in shallower water in view of residents, new projects are in deeper water far off the coast. Another is that turbine power and installation efficiency has Europe’s offshore wind farms years ahead of schedule in competing with fossil fuel prices and weaning off government subsidies. When Cape Wind was planned, the industry standard was a 3.6-megawatt turbine. The norm is now 6-to-8 megawatts, with a 9.5 megawatt machine announced this summer.

“It’s been a real slog, but the great news is that with all the innovation, the US has the opportunity to do it right and do it faster than the first projects in Europe,” said Jason Folsom, head of American sales for Siemens Gamesa.

Stephanie McClellan, a University of Delaware offshore wind expert who calculates that a strong project pipeline in Massachusetts will make the price of offshore wind competitive with fossil fuels, said, “I’m pretty close to shocked with all the cost-reduction developments we’re seeing by the Danish, the Dutch, the Germans . . . everything’s moving in the right direction.”

But now other states are moving in the direction Massachusetts blazed, forcing state officials to make a case for being an offshore hub. In a May conference on Long Island, Bill White, director of offshore wind for the Massachusetts Clean Energy Center, reminded 400 people that the Commonwealth has the nation’s first ready-to-deploy port terminal in New Bedford and a world-class blade testing facility in Charlestown. Innovation is already occurring as Deepwater Wind, with offices in Providence and New Bedford, has proposed a 144-megawatt wind farm south of Martha’s Vineyard that will employ a Tesla battery storage system for peak energy use.

“We have political leadership,” White said. “We have a great business climate in the Bay State. . . We have some of the finest universities. We are very committed.”

There remains plenty of cooperative spirit between Massachusetts, New York, and Rhode Island. The three states this month released a report estimating that the Northeast could see between 4 to

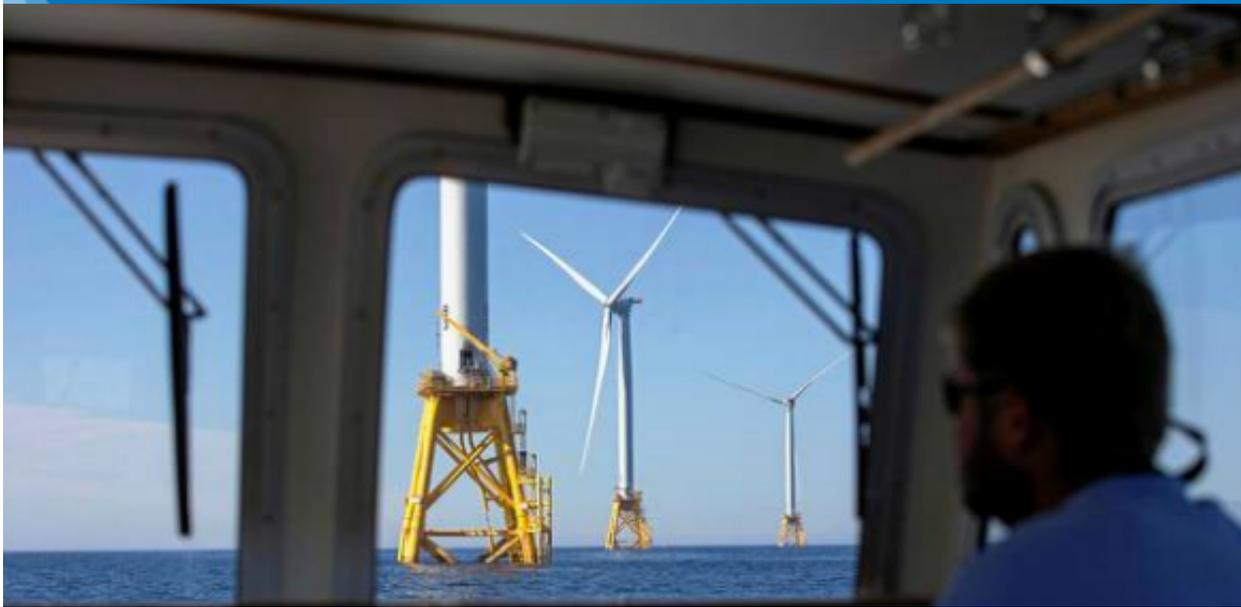
8 gigawatts of projects by 2030, powering up to four million homes and providing up to 16,000 direct jobs, and perhaps 20,000 more related jobs.

But the competition is heating up so fast that advocates fear the Commonwealth must dramatically shorten the timeline of 2027 for its 1.6 gigawatts, or risk losing jobs to more aggressive states — and the possibility of giant facilities to manufacture turbines and blades. In a guest column in the New Bedford Standard Times, Bradley Campbell, head of the Conservation Law Foundation, and George Bachrach, former head of the Environmental League of Massachusetts, said the state should fulfill the mandate by 2022.

That is reasonable, given industry advances, and also prudent, with New York nipping at the state's heels. Ironically, the head of New York's clean energy division is former Massachusetts Clean Energy Center CEO Alicia Barton. "Everybody should be looking at New York," Barton said. "We have the right workforce, infrastructure, and marine logistics. We're the home for engineering and financing services. We'll be ready to deliver."

At the beginning of the offshore wind saga in the United States, Massachusetts was the hub of this universe. Now, Bill White says, "It's not about any one state anymore, and we know that. But we'll get our share." A decade ago, a lion's share was unquestioned. No more.

RECHARGE WIND



Revolution's location gives it the edge, says Deepwater CEO

by **Karl-Erik Stromsta** | 31 October 2017

Despite the vast amount of onshore renewables bid into Massachusetts' current 83D clean-energy tender, developer Deepwater Wind believes its 'Revolution' proposal – combining 144MW of offshore wind with a large Tesla battery system – will win an off-take contract in 2018.

If Deepwater is right – if Revolution edges out onshore wind, solar and hydro for a contract – it will be a tremendous breakthrough for the offshore wind sector in the US. But how can it possibly compete against low-cost onshore renewables?

Location, location, location, explains Deepwater's chief executive Jeffrey Grybowski.

Revolution "is probably the only resource in the [83D] solicitation that's not coming from the

north; it's the only resource that would be serving southern New England", Grybowski tells Recharge.

"There are a lot of resources currently supplying southern New England that are going, or have gone, away," Grybowski says, pointing to the Brayton Point Power Station, which was Massachusetts' last remaining coal-fired plant until going dark this June.

Revolution would be built within one of the zones Deepwater Wind controls south of Martha's Vineyard, and linked to a substation adjacent to Brayton Point, in Somerset, Massachusetts.

Revolution was designed to use GE Haliade turbines, though Deepwater remains open to using machines from Siemens Gamesa or MHI Vestas.

Massachusetts has two hugely important renewables tenders underway: the so-called 83C request for proposal, [open only to offshore wind](#) projects; and the much larger and technology-agnostic 83D solicitation, seeking 9.45TWh of clean energy by the early 2020s.

Much attention has been given to the 83C offshore wind tender, but the 83D solicitation is significantly larger – and likely to result in several gigawatts of contracts for renewables projects in the northeastern US or Atlantic Canada region.

Bids are already in for the 83D tender, with the winners to be announced in early 2018. Bids for the offshore-only tender are due in December.

The southern angle

The 83D clean-energy tender was expected to be dominated by proposals for onshore renewables firmed by hydropower – and indeed there was plenty of that.



Among the eye-catching bids submitted were Emera's [Atlantic Link proposal](#), which would see a 1GW HVDC power cable strung from eastern Canada down to Plymouth, Massachusetts – flowing Canadian onshore wind backed by hydropower.

A number of other projects – backed by developers including Brookfield Renewable, Avangrid Renewables, Apex Clean Energy, Pattern Development, EDP Renewables, and NRG – would bring onshore renewables down to Massachusetts from Maine and upstate New York.

Yet to nearly everyone’s surprise, Deepwater Wind also bid in 144MW of offshore wind capacity to be firmed by a 10MW/40MWh onshore battery system. The D.E. Shaw-backed developer also plans to bid in Massachusetts’ upcoming offshore-only tender.

Revolution’s storage element was designed with Tesla’s Powerpack 2 in mind, though Deepwater is also looking at options from GE’s Current unit and from Fluence (created recently by Siemens and AES).

With the battery system in place, Revolution would be able to deliver power consistently onto the ISO-New England grid during peak hours – allowing the region to defer or reduce its need for new onshore transmission lines and generation capacity.

“Offshore wind serves a different part of the electric grid in New England, which other resources can’t easily reach,” Grybowski says.

“There’s quite a bit of [transmission] congestion between those northern resources and population centres closer to the coast,” he says. “We’re not really competing head to head against many of those other resources, in our view.”

Like the other 83D bidders, Revolution’s bid price remains undisclosed, but “I think the pricing will surprise folks”, Grybowski says.

Southern New England has “the best offshore wind on the East Coast”, he says, which will help to bring down the levelised cost of energy at any projects built south of Massachusetts.

Deepwater built the first US offshore wind farm at Rhode Island’s Block Island, and it also has



off-take deals in place for its 90MW South Fork project off New York’s Long Island and its 120MW [Skipjack](#) development off Maryland.

“You go farther south, and the wind starts to drop off,” Grybowski says. “The wind speed’s just not as strong as it is in the northeast.”

He points out that at 144MW, Revolution would only account for around 5% of the capacity likely to be contracted through Massachusetts' 83D tender.

“We expect the state will select a portfolio of projects, and there are some unique attributes of offshore wind that allow us to fit well within a portfolio.”

Jobs, jobs, jobs

Beyond Revolution's locational advantages over projects in Maine or Canada, there are other reasons why Massachusetts might select it, Deepwater argues.

Doing so would set two Massachusetts offshore wind projects in motion simultaneously – the other to come out of the 83C tender – helping to accelerate the establishment of a US offshore wind supply chain.

It would also give Massachusetts another edge in the increasingly aggressive race among US states to secure long-term offshore wind jobs and supply chain investment.

Two weeks ago Deepwater committed to establishing its construction and long-term operations hub for Revolution in New Bedford, Massachusetts, bringing an estimated 700 direct regional jobs – if the project wins a deal.

“There are benefits for the state in getting a head start on its offshore wind programme,” Grybowski says.

If Revolution gets a PPA in early 2018, Deepwater believes it can have all the necessary permits in place by 2021 and have the project completed by the end of 2023.

Deepwater Wind pledges to operate turbines from New Bedford



🛒 BUY PHOTO

▲ HIDE CAPTION

New Bedford Port Director Edward Anthes-Washburn and Mayor Jon Mitchell listen to Deepwater Offshore Wind Vice President Mathew Morrissey speak during a press event hosted at the base of the hurricane barrier near the south terminal in New Bedford. [PETER PEREIRA/THE STANDARD-TIMES/SCMG]

By Jennette Barnes Posted Oct 20, 2017

NEW BEDFORD — Deepwater Wind announced Friday that it would establish long-term operations in New Bedford for one of its proposed offshore wind projects, Revolution Wind, if the project wins a state contract.

At a press conference on the New Bedford waterfront, Matthew Morrissey, a Deepwater vice president, said the company would also base installation out of the New Bedford Marine Commerce Terminal. He called the announcement “a milestone moment for our company.”

More than a year ago, three entities competing for offshore wind contracts in Massachusetts signed a letter of intent committing to use the terminal. Deepwater Wind was one of them, but at the time, it had not proposed Revolution Wind, its second Massachusetts bid.

Revolution Wind is not part of the three-way competition for a state offshore wind contract for at

least 400 megawatts of energy generation. The project is smaller, at 144 megawatts, and is competing in a separate bidding process with renewable energy projects such as hydropower, land-based wind, and solar.

In that process, electricity companies and the Massachusetts Department of Energy Resources are scheduled to select winning bids by Jan. 25. For the big offshore wind projects, the wait is longer: until April 23.

Friday's announcement goes much further than the non-binding letter of intent, according to Deepwater spokeswoman Meaghan Wims. It represents binding a commitment, contingent upon Revolution Wind being selected.

Morrissey said Revolution Wind would have 24 turbines and generate enough power for 72,000 homes. It would create 700 temporary construction jobs and 60 permanent jobs, directly and indirectly.

The project would use only 20 percent of the company's lease area off Massachusetts, leaving plenty of room to grow.

"We have a long way to go as a company," he said.

During the time that Revolution Wind uses city port facilities, it has committed to pay \$5.5 million annually to the state for use of the Marine Commerce Terminal and \$500,000 annually to the New Bedford Harbor Development Commission for support services.

Edward Anthes-Washburn, port director, said New Bedford became the country's No. 1 fishing port because of its ability to diversify, and offshore wind is another step.

Mayor Jon Mitchell welcomed the commitment from Deepwater Wind. He said the city has cultivated a relationship with an industry that was once largely foreign.

For a long time in New Bedford, economic development was a matter of pointing at different ideas and saying, "That sounds good, that sounds good," he said.

"We're in the business of building our economic base here for the long run," he said.

The head of one of the competing wind companies, Erich Stephens of Vineyard Wind, said in a later interview that his company is committed to being based in New Bedford and staging turbine installation in the city. Some component of its operational activity would probably also be in New Bedford, but operations is about getting people to the site quickly and does not require large facilities, he said.



Offshore Wind Turbines To Be Constructed In New Bedford

By [Tim Dunn](#) October 20, 2017 2:39 PM



WBSM

NEW BEDFORD – Though their final destination will be 35-miles out to sea, offshore wind turbines have moved a step closer to being manufactured right here in New Bedford.

Mayor Jon Mitchell joined representatives of Deepwater Wind on Friday to announce that the offshore wind developer will establish a significant construction and long-term operations center at the city's Marine Commerce Terminal if approved by Massachusetts utilities in January.

Deepwater Wind estimates that the construction of the operations center will directly create approximately 700 regional construction jobs. Deepwater also says that hundreds of additional indirect jobs will be created in New Bedford to support operations of the Revolution Wind project.

“Today we mark a milestone that is further evidence, very compelling evidence, that this is all becoming very real here,” Mayor Jon Mitchell said in a press conference. “That’s real investments and real commitment by real, well-financed companies to plant their flag right here in New Bedford.”

Senior Vice President of Deepwater Wind Matt Morrissey announced that the company is seeking out suitable sites in the harbor for vessel dockage and an operations and maintenance facility. He also announced the company will pay annual fees of \$5.5 million to the state and \$500,000 annually to the City of New Bedford for the use of the port facilities.

The arrival of Deepwater Wind’s operations to the Whaling City will primarily support the Revolution Wind project, the 144-megawatt, 24-turbine offshore wind farm which the company expects to be 35-miles south of New Bedford.

“This project-at 144 megawatts and 24 turbines only represents 20% of our large lease area 35-miles from here. The Deepwater lease area is 250 square miles in the northeast,” said Morrissey. Port Director Ed Anthes-Washburn says that with commercial fishing as New Bedford’s top-grossing industry, offshore wind developers need to work hand-in-hand with commercial fisheries to prevent future complications. Washburn also argues that the commercial fishing industry could grow alongside offshore wind.

“It’s very important to ensure that we have the right communication and the right interaction with the fishing industry, and that’s where I really think the fishing industry can grow along an offshore wind industry,” said Washburn. “If we can mitigate the concerns ahead of time with the commercial fishing industry I really do think that offshore wind could have a huge impact.”

Deepwater Wind is America’s only offshore wind developer and only company operating an offshore wind farm in the United States. The company’s Block Island wind farm began operations in December 2016 and is currently developing two more wind farms in Long Island and Maryland.

The Revolution Wind project is expected to be decided on by utilities and state regulators in January 2018. If approved, any local construction work on Revolution Wind would begin in 2022 with operations starting in 2023.

By Lauren Dezenski

TODAY — New Bedford Mayor Jon Mitchell, state and local officials, and DeepwaterWind representatives will make a “major announcement regarding the offshore wind industry in New Bedford” and the role New Bedford’s port will play in Deepwater’s Revolution Windproject off of Massachusetts’ coast



DEEPWATER WIND'S REVOLUTION WIND ESTIMATED TO CREATE 700 CONSTRUCTION JOBS IN NEW BEDFORD

Deepwater Wind will establish a significant construction and long-term operations hub in the City of New Bedford for its Revolution Wind project if selected by the state's utilities, the company announced today, becoming the first offshore wind developer to commit to using New Bedford as its base.

Deepwater Wind's plans for the Revolution Wind project to use the New Bedford Marine Commerce Terminal and other facilities in the City will help to jumpstart the offshore wind industry in Massachusetts.

Deepwater Wind will be the first offshore wind company to use the New Bedford Marine Commerce Terminal if its Revolution Wind project proposal is approved in January by Massachusetts utilities.

The Revolution Wind project will use the New Bedford Marine Commerce Terminal for

significant construction and staging operations – creating approximately 700 direct regional

construction jobs to complete the first 144 megawatts (MW) of what could be a much larger project over time.



It is expected that the economic activity located in the City will lead to hundreds of additional indirect jobs. Many of these jobs will be located in New Bedford as part of Revolution Wind’s use of the marine terminal and other facilities.

“This is just the start of the regional economic benefits generated from Deepwater Wind’s projects. Revolution Wind will occupy just 20 percent of our site. As we build future projects in the site, we’ll create many more jobs in the region,” said Jeffrey Grybowski, Deepwater Wind’s Chief Executive Officer.

“We have worked hard to position New Bedford to become the leading offshore wind port on the East Coast,” said New Bedford Mayor Jon Mitchell. “Deepwater Wind’s announcement today that it will use New Bedford as its base for the first major offshore wind project in New England is a major step in that direction. We look forward to working with Deepwater to help create job opportunities for our residents and grow our maritime economy.”



During its use of port facilities in the City, the Revolution Wind project will pay \$5.5 million in annual fees to the state and \$500,000 annually to the City of New Bedford.

“These funds will make it possible for the Port of New Bedford to provide essential additional port services, invest in and plan for the future growth of the port, and help maintain our leadership role in commercial fishing by successfully integrating an emerging industry on our waterfront,” said Port Director Edward Anthes-Washburn.

Upon approval by the Massachusetts utilities, the 144 MW Revolution Wind project will generate between \$200 to \$250 million in direct and indirect regional economic activity.

In addition, Deepwater Wind will locate ongoing operations and maintenance for the Revolution Wind project in New Bedford. Deepwater Wind is working with the City to identify suitable sites for an operations and maintenance facility and vessel dockage. That work will create another approximately 60 direct and indirect annual jobs over the 25-year lifespan of the wind farm.

“Our leadership in the Southcoast delegation ensured significant procurement of renewable offshore wind, utilizing New Bedford as the main port,” said State Senator Mark C. Montigny (D-New Bedford), who authored key amendments during the 2016 energy debate to ensure stable and consistent offshore wind procurements.

“New Bedford’s key role in this emerging industry is made possible by state-funded infrastructure and dynamic public-private partnerships with innovative developers like Deepwater Wind. This is an opportunity for significant economic growth and job creation in our city and the entire Southcoast region.”

“When the Southcoast delegation came together to fight for this procurement, we threw our weight behind the idea that the offshore wind industry would establish a prominent presence here in New Bedford,” said State Representative Antonio F.D. Cabral (D-New Bedford). “It is incredibly rewarding for the entire community to see Deepwater Wind’s plans taking shape, with new jobs soon to follow. Through thoughtful capital investment, we paved the way for this

industry to make roots in our City and soon, our region will lead the nation in energy production once again.”

“There is no better home for our Revolution Wind project than the Port of New Bedford,” said Matthew Morrissey, Deepwater Wind Vice President Massachusetts.

“Offshore wind will transform the port to become one of the country’s premier offshore wind hubs and create hundreds of good, well-paying jobs for local workers in one of the country’s most exciting new industries.”

The Revolution Wind proposal is the first utility-scale offshore wind proposal to be offered to the Commonwealth through competitive procurements authorized by the state’s landmark 2016 energy legislation.

Deepwater Wind proposed the 144 MW, 24 turbine Revolution Wind farm – paired with a 40 megawatt-hour battery storage system provided by Tesla – in response to the Commonwealth of Massachusetts’ request for proposals for new sources of clean energy in Section 83D of the Act to Promote Energy Diversity. Deepwater Wind also provided alternative bids for a larger 288 MW version of Revolution Wind and a smaller 96 MW version.

Revolution Wind would be the largest combined offshore wind and energy storage project in the world. Deepwater Wind will build Revolution Wind in the company’s federal lease site off the coast of Massachusetts. The site is located 30 miles from the mainland and about 15 miles southwest of Martha’s Vineyard.

Utilities and state regulators are expected to make a decision in January, 2018 on the Revolution Wind proposal. If approved, local construction work on Revolution Wind would begin in 2022, with the project in operations in 2023. Survey work is already underway at Deepwater Wind’s lease area.

Deepwater Wind also intends to submit an offshore wind proposal under Massachusetts’ separate 83C offshore wind RFP; those bids are due in December.



Reuters

Deepwater Wind, which built the only U.S. offshore wind farm off Rhode Island, proposed this week to build the 144-megawatt Revolution wind farm off the coast of Massachusetts:

* The company said it would pair Revolution with a 40-MW battery storage system from Tesla *
Deepwater said it could start construction of Revolution in 2022 with startup in 2023

* It would be located south of Martha's Vineyard next to Deepwater's 90-MW South Fork wind farm, which is scheduled to start serving customers on Long Island in New York in 2022

* Deepwater's 30-MW Block Island wind farm in Rhode Island entered service in December 2016 (Reporting by Scott DiSavino)



Boston Herald

Wind power charging up

Co. eyes seat at utilities' table

Jordan Graham Thursday, August 03, 2017



TURNING TO CLEAN ENERGY: Deepwater Wind CEO Jeffrey Grybowski shows off Deepwater Wind's project off Block Island, R.I., last year. Gybowski is eyeing another wind farm near Martha's Vineyard.

Energy companies have filed dozens of proposals to provide Massachusetts utilities with clean energy, including an offshore wind farm that uses Tesla batteries to store extra energy, as renewable energy providers try to compete on price with traditional power sources.

“This would be the biggest pairing of offshore wind and batteries anywhere in the world,” said

Jeffrey Grybowski, chief executive of Deepwater Wind. “We’ll take the wind power that we’re producing in the middle of the night, charge up the batteries, and in the peak hours in the afternoon we can discharge the batteries.”

Deepwater Wind already operates a 30-megawatt, 5-turbine wind farm off the coast of Rhode Island, but is proposing a 24-turbine, 144-megawatt wind farm combined with a 40-megawatt-hour Tesla battery storage system. The turbines would be about 12 miles south of Martha’s Vineyard, about 30 miles off the mainland, Deepwater said.

Offshore wind has been criticized for high costs and expensive energy, but in its bid, Deepwater said its wind power would be priced competitively because it is smaller than other offshore installations.

“We’re going to be very competitive on price, we wouldn’t have submitted the bid if it weren’t that way,” Grybowski said.

Energy storage has long been a challenge for clean energy, and seen as the answer to shifting winds or cloudy days. Grybowski said battery costs have been driven down thanks in large part to car companies, and have begun to make financial sense. The stored electricity would be sent into the grid during peak hours, particularly in the winter when energy prices are often sent soaring.

Deepwater’s bid was one of dozens filed in response to a state RFP calling for clean energy proposals for utilities such as Eversource and Nstar that serve Massachusetts, mandated by a renewable energy bill signed into law last year. Other responses include proposals for solar, hydropower and on-shore wind around the state, and the state is expected to select multiple projects.

“The Baker-Polito administration is committed to a balanced and diverse energy portfolio that ensures a clean, affordable and resilient energy future for the commonwealth,” said Kevin O’Shea, a spokesman for the Department of Energy Resources. “The responses to this clean energy solicitation mark an important next step in meeting the objectives of the bi-partisan comprehensive energy diversification legislation signed by Gov. Baker last August, and will be carefully reviewed to ensure that all the energy procured is in the best interest of the commonwealth and its ratepayers.”

The Axios logo consists of the word "AXIOS" in a bold, white, sans-serif font. The letter "A" is stylized with a blue diagonal line through it. The logo is set against a solid black rectangular background.

A mighty (offshore) wind

Axios Generate

A mighty (offshore) wind

Joining forces: Deepwater Wind is proposing a 144 megawatt project off the Massachusetts coast that would also have 40 megawatt-hour battery storage system provided by Tesla. The project, if approved, would begin construction in 2022 and start operating in 2023.

Why it matters: If built, it would be the world's largest hybrid offshore wind and energy storage project, according to Deepwater Wind.

Combining storage with solar and wind projects helps to deploy more renewables onto the grid by creating flexibility to provide energy from intermittent resources when it's most needed. **Still not a player:** While there are several projects planned, for now the U.S. remains a bit player in the global offshore wind market that's currently dominated by European projects. Deepwater Wind's Block Island project off Rhode Island is the only U.S. commercial offshore wind farm in operation.

"[A] firm pipeline is beginning to emerge in the early 2020s as [U.S.] states slowly establish new routes to market," notes a recently released Bloomberg New Energy Finance report. Still, the U.S. accounts for a very small share of the cumulative 71 gigawatt offshore wind market they forecast in 2025 as Chinese development grows rapidly and Europe, also growing, remains the biggest player overall.



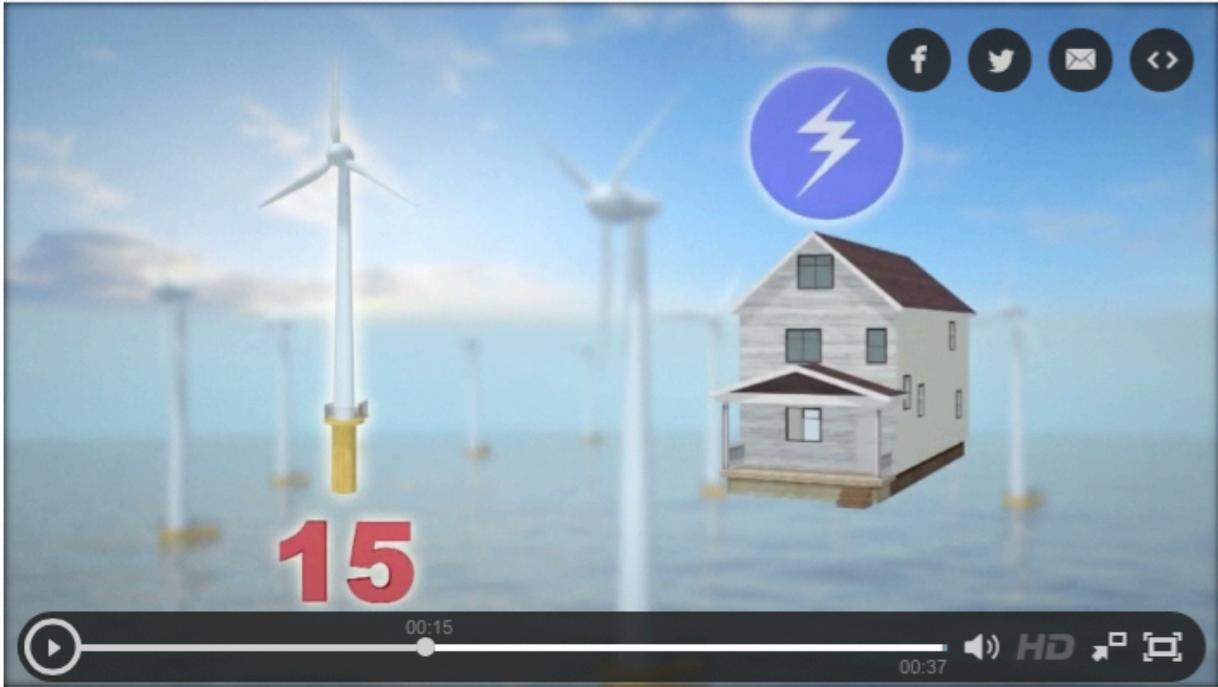
Huffpost

POLITICS 08/02/2017 02:29 pm ET

The Booming Wind Energy Industry Might Finally Break Its Massachusetts Hex

A new offshore wind farm could bring jobs to New England’s struggling fishermen.

 By Alexander C. Kaufman



The company behind North America’s first offshore wind farm unveiled plans this week to bring seaward turbines to Massachusetts.

If the Bay State regulators give Deepwater Wind their blessing to build a massive wind farm in the waters between Massachusetts and Rhode Island, the burgeoning wind industry could finally break the curse of Cape Wind, the failed 24-square-mile project first proposed off Cape Cod 16 years ago. Renewable energy skeptics have long used Cape Wind’s failure as proof that turbines were too costly, dangerous and unpopular to serve as a top power source for the country.

Rhode Island-based Deepwater Wind has already succeeded in getting a five-turbine wind farm up and running off Block Island that began producing electricity last November. It’s also built or

gained approval for farms in New York and Maryland. Now the company plans to submit an official bid next year to build its fourth wind farm, off the coast of southern Massachusetts.

Named Revolution Wind — a heavy-handed reference to turbines in a state culturally obsessed with its colonial past — the proposed project would have 144 megawatts of electricity-producing capacity, with the option of going bigger with 288 megawatts or smaller with 96.

The firm plans to pair the turbines with a 40 megawatt-hour Tesla battery storage system that would collect excess energy late at night, when the wind blows but fewer lights are on, and deploy it during peak hours of the day, offering the kind of reliability that burning fossil fuels provides.

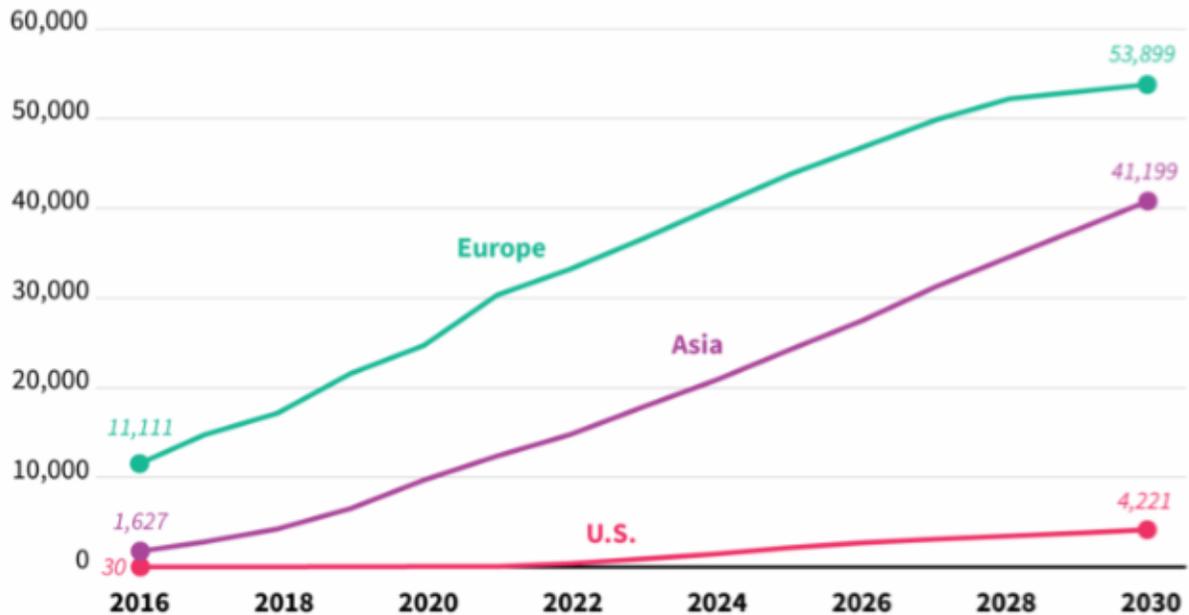
“This battery-offshore wind storage combo, we’ve seen it in some projects pairing batteries with solar and a few with batteries with onshore wind,” Deepwater Wind CEO Jeff Grybowski told HuffPost by phone. “But we’ve proposed here the biggest offshore wind-battery combo in the world.”

It’s an ambitious plan, especially in Massachusetts. Cape Wind’s failure to build its namesake project, after applying for its first permits in 2001, came to symbolize the renewable energy industry’s woes and set the offshore sector back years, even as wind turbines proliferated off the shores of Europe and East Asia.

Cape Wind sought to put 130 turbines in Horseshoe Shoal, part of Nantucket Sound. That drew opposition from rich people with last names like Kennedy and Koch, who didn’t want windmills obstructing their beachfront views. Environmentalists, too, feared that noise from the construction would disturb migrating whales and that the blades would kill seabirds.

The U.S. Lags Behind Europe And Asia In Offshore Wind Power

Cumulative megawatts of offshore wind installations, forecast through 2030



Source: Bloomberg New Energy Finance

HuffPost

ALISSA SCHELLER / HUFFPOST

Offshore wind is soaring in Europe and East Asia, though it has been slow to take off in the United States.

Revolution Wind will likely attract similar scrutiny.

“The question in our mind is whether or not these things are being done in a way that exercises responsible resource protection,” said Jeff Ruch, executive director of Public Employees for Environmental Responsibility, which successfully sued Cape Wind for violating the Endangered Species Act. “In the case of Cape Wind, it was in the middle of important flyways and would have Cuisinart-ed a lot of important birds.”

Piledriving the bases of offshore turbines produces loud noise that disturbs fish and sea mammals, but Deepwater Wind worked closely with whale surveyors and wildlife officials to avoid disrupting migrating creatures when building the Block Island Wind Farm last year.

The noise from completed turbines, however, remains relatively low, a 2014 review of studies published in the journal *Environmental Research Letters* found. Though some seabirds collide with turbines, 99 percent “steer clear,” according to a 2014 Scottish government study.

To quell the criticism from well-heeled homeowners, Grybowski said the company plans to build Revolution Wind 30 miles from shore, roughly two to three times farther out than Cape Wind’s proposed project.

“We’re building a project out in the middle of the ocean as opposed to a location like Cape

Wind, in the middle of the sound,” he said. “This is a project that can be sited in a way that it will avoid controversy.”

Deepwater Wind’s other advantage comes from how it’s pitching the project. Massachusetts put out two requests this year — one for general clean energy proposals and another specifically for offshore wind — as part of Republican Gov. Charlie Baker’s push to slash climate-altering emissions. Revolution Wind’s yearlong construction would begin in 2022 and the project could meet up to 10 percent of the state’s outlined needs.

It could also boost the number of jobs available for the region’s struggling mariners. Overfishing and climate change have decimated the cod population in New England, forcing federal regulators to dramatically lower the annual fishing quota. Fishing jobs have disappeared. Skills like hauling nets and sorting fresh catch may not transfer to work on offshore wind turbines, but Grybowski said the company plans to build an upkeep facility in New Bedford, a fishing hub roughly 60 miles south of Boston, and he wants workers with experience on the water.



SCOTT EISEN/GETTY IMAGES

Tourists look out over the Block Island Wind Farm, located 3 miles off New Shoreham, Rhode Island.

“There will be several hundred people employed in New Bedford, either through construction or long-term maintenance,” Grybowski said. “We’re going to need vessel captains, mates, people who are going to work outdoors and get on the water. People in the fishing industry today, they’re ideal candidates for those types of jobs.”

In the United Kingdom, where offshore wind is booming, marine industries are drawing new funding and attention, said Keegan Kruger, a London-based wind analyst at the data firm Bloomberg New Energy Finance. But he said most workers have come over from the offshore oil and gas industry. Deepwater Wind's turbines, for example, are built on the repurposed bases of offshore oil rigs.

"There's been a resurgence in investing in port infrastructure and setting up apprenticeships and training colleges," he told HuffPost.

For now, Deepwater Wind remains the primary offshore wind developer in the United States. In December, Norway's state-owned oil company Statoil won a \$42.5 million bid to lease 79,350 acres of federal waters off the coast of Long Island. Bay State Wind, a joint venture between Danish wind giant DONG Energy and a local firm, is taking steps toward building in Massachusetts waters, too.

Deepwater Wind's Block Island farm already shut down the vacation spot's diesel-fueled power station this year. Now the company is working on a 90-megawatt project, dubbed the South Fork Wind Farm, 30 miles southeast of Montauk, New York, with plans to start providing power to Long Island utility customers in 2022. In Maryland, the firm is under contract to build its Skipjack Wind Farm by 2022. Revolution Wind would be its fourth location.

Offshore wind will provide 17,575 megawatts worldwide this year, according to Bloomberg New Energy Finance data, with 14,740 megawatts in Europe, 2,805 in Asia and just 30 in North America, thanks to the Block Island Wind Farm. But the industry has tremendous potential. Wind off the coast of the U.S. could generate 4,223 gigawatts of electricity — four times the power that's currently produced by all sources in the country, according to a 2012 study by the National Renewable Energy Laboratory.

So the ghost of Cape Wind may not haunt the U.S. wind energy industry for long.

"Ten years ago, it was effectively onshore turbines that they put out at sea," Kruger said. "Now that's completely changed. First and foremost, this is a marine sector before it's a wind sector. Things are very, very different than they were back then."

STATE HOUSE

NEWS SERVICE

DEEPWATER WIND TAKING TWO SHOTS AT STATE ENERGY PROCUREMENT

By Katie Lannan
STATE HOUSE NEWS SERVICE

STATE HOUSE, BOSTON, AUG. 1, 2017....One of the three developers vying to build wind energy installations south of Martha's Vineyard took its first shot last week at winning a long-term contract to bring renewable power to Massachusetts.

Deepwater Wind, which currently operates an offshore wind farm off Rhode Island, announced it had answered a request for proposals (RFP) for clean energy projects with a plan to construct the "Revolution Wind" farm 12 miles south of Martha's Vineyard, with operations based in New Bedford.

Deepwater Wind, DONG Energy and Vineyard Wind each hold federal leases in the waters south of Martha's Vineyard, and each plans to submit proposals for offshore wind installations by a December deadline. Deepwater is the only one of the three to answer a separate request seeking clean energy generated by a variety of sources, including solar and hydropower.

Deepwater Wind CEO Jeffrey Grybowski described the company's proposal, a 144-megawatt offshore wind farm paired with a 40 megawatt-hour battery storage system provided by Tesla, as "the largest combined offshore wind and energy project in the world." Deepwater also provided bids for a larger 288-megawatt version of its farm and a smaller, 96-megawatt version.

A 2016 law required Massachusetts utilities to procure 1,600 megawatts of offshore wind and 1,200 megawatts of new hydropower, solar, wind and other renewable sources by 2027. The RFP that closed last week seeks long-term contracts for 945 megawatts of clean power, while a separate RFP due in December is soliciting 400-800 megawatts of offshore wind.

Neither DONG Energy or Vineyard Wind submitted plans for last week's RFP, and spokespeople from both companies said their main focus is on preparing the submissions due in December.

State officials plan to post details of the RFP responses on a website hosting information about the clean energy projects, but have not yet done so. Meantime, several entrants have announced some information about their proposals in the days since the deadline.

The Halifax-based company Emera Inc. proposed to build a new 1,000-megawatt subsea transmission line that would span the 375 miles between Plymouth and Coleson Cove, New

Brunswick to deliver 5.69 terawatt hours of energy from seven proposed wind farms and two hydro suppliers in Canada.

TDI-New England, the company behind the 1,000-megawatt 154-mile project dubbed New England Clean Power Link, submitted two proposals in partnership with Hydro-Quebec, Gaz Metro and Boralex that the company says would deliver roughly \$20 billion in benefits to Massachusetts over 20 years.

National Grid and Citizens Energy also submitted proposals for two projects -- Granite State Power Link (GSPL) and Northeast Renewable Link (NRL) -- to deliver "land-based wind power and solar generation already under development from Canada and New York" to Massachusetts to reduce carbon emissions by approximately three million tons annually.

Central Maine Power said it had submitted "several proposals" to deliver energy from hydro, wind and solar, including a new 145-mile transmission line from the Canadian border to Lewiston, Maine.

Deepwater Wind submits second wind bid

By Jennette Barnes



Posted at 1:01 PM

Updated at 1:01 PM

NEW BEDFORD — Deepwater Wind has submitted a second bid for a Massachusetts offshore wind project under a section of the state’s energy diversity law that is separate from the main bidding process for offshore wind.

The company is one of three competitors in the main process, under Section 83C of the law.

Under a second provision, Section 83D, electricity companies are soliciting for renewable energy projects without restrictions on the source of the energy. The law gives preference to projects that combine hydroelectric power with another source.

Deepwater Wind, which is based on Rhode Island and has an office in New Bedford, is calling its new project Revolution Wind. Proposed at 144 megawatts, with options for larger or smaller versions, the project is smaller than those in the main offshore wind solicitation. Bids for that were required to provide at least 400 megawatts of electricity generation capacity.

Revolution Wind would include a 40 megawatt-hour battery storage system provided by Tesla to offer stored energy when the grid needs it most. According to Deepwater Wind, the installation would be the world’s largest offshore wind-energy storage combination.

“People may be surprised by just how affordable and reliable this clean energy combo will be,” Deepwater Wind CEO Jeffrey Grybowski said in a press release.

Bids for 83D were due July 27. The Massachusetts Department of Energy Resources has not yet made the list of bidders public, but expects to do so within a day or so, spokesman Kevin O’Shea said.

Among the bidders is TDI-New England, which is developing an energy transmission line from Canada through Vermont called the New England Clean Power Link. TDI-New England recently announced it had submitted two Massachusetts proposals: one to provide 1,000 megawatts of hydropower from the existing Hydro-Québec system, and another to provide 700 megawatts of such power plus 300 megawatts of wind from a new wind farm.

Deepwater's Revolution Wind would be located in the same federal lease area meant to host both its other Massachusetts proposal and its South Fork Wind Farm, a 90-megawatt project serving Long Island. The site about 12 miles south of Martha's Vineyard has plenty of space for all three, according to Deepwater spokeswoman Meaghan Wims.

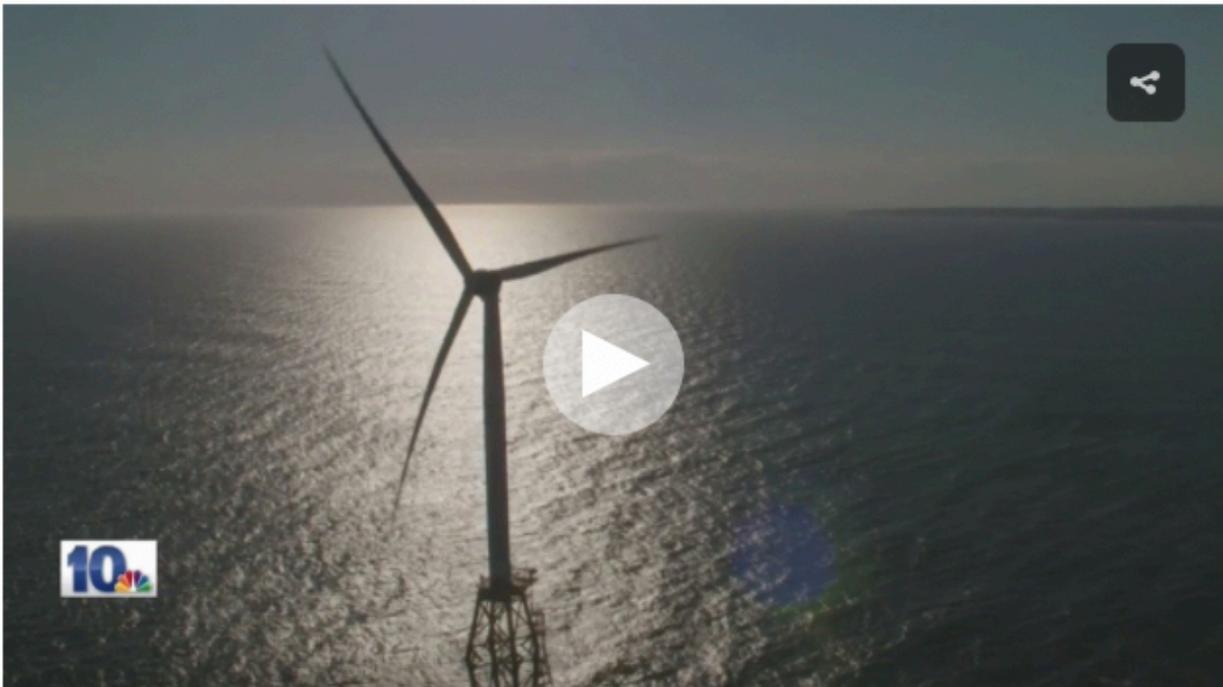
Deepwater Wind said it would base construction and operations in New Bedford, with final turbine assembly and staging at the New Bedford Marine Commerce Terminal. Revolution Wind's long-term operations and maintenance center would also be in the city.

Electricity companies, in cooperation with the state Department of Energy Resources, are scheduled to select renewable energy projects under 83D by Jan. 25.

Bids for the main offshore wind process are due Dec. 20.

Massachusetts seeking bids for largest renewable energy contract in New England history

by CRYSTAL BUI, NBC 10 NEWS | Tuesday, August 1st 2017



Massachusetts is now reviewing proposals to bring clean energy to the state.

Massachusetts is now reviewing proposals to bring clean energy to the state.

Gov. Charlie Baker's administration is seeking project bids worldwide to provide up to 1,200 megawatts of energy.

The governor is taking proposals from water, wind, and solar power companies, with local businesses looking to grab the largest renewable energy contract in New England history.

Other proposals from energy companies come from near and far, including Massachusetts and Rhode Island, as well as Vermont, Maine, Indianapolis, Canada and even the United Kingdom.

One familiar company is making a run for the contract: Rhode Island-based Deepwater Wind. They're known for their first off-shore wind farm in the United States, right off Block Island.

Deepwater Wind shared their proposal with NBC 10 News on Tuesday.

“What we've proposed is the largest wind-battery combined power in the world,” CEO Jeff Grybowski said.

Grybowski plans to add 18 to 24 wind turbines about 20 miles off the coast of New Bedford -- and they're planning on to partner with an industry power-player: Tesla

Tesla's new battery technology will store wind farm energy. The company's founder, Elon Musk, recently visited Rhode Island

“So, it really helps us maximize the value of all that wind power,” said Grybowski.

The wind-farm energy could power about 80,000 Massachusetts households every year.

“But again, this a price competition,” said Grybowski.

The project, if approved, would be ready by 2023 to 2024.

NBC 10 asked Grybowski how many years it would take to bring the cost down for residents because of the initial investment.

“I think from day one, we think this will be a price-competitive project,” said Grybowski. He also said it's likely the wind-turbines won't be seen from shore. Deepwater Wind is hoping their off-shore wind farm will be a part of that mix for years to come. It's also unlikely any of the project bids will be subsidized.



CAPE COD TIMES

Deepwater Wind taking 2 shots at Massachusetts energy procurement



[Cape Cod Times](#)

BOSTON — One of the three developers vying to build wind energy installations south of Martha’s Vineyard took its first shot last week at winning a long-term contract to bring renewable power to Massachusetts.

Deepwater Wind, which currently operates an offshore wind farm off Rhode Island, announced it had answered a request for proposals (RFP) for clean energy projects with a plan to construct the “Revolution Wind” farm 12 miles south of Martha’s Vineyard, with operations based in New Bedford.

Deepwater Wind’s project off Block Island. The company plans to take two shots at a procurement for renewable energy in Massachusetts. [Merrily Cassidy/Cape Cod Times file]

By Katie Lannan / State House News Service

Posted Aug 1, 2017 at 6:35 PM

Updated Aug 1, 2017 at 6:35 PM

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by a December deadline. Deepwater is the only one of the three to answer a separate request seeking clean energy generated by a variety of sources, including solar and hydropower.

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NECN

Offshore Wind Developer Announces Clean Energy Project Off Massachusetts Coast



Published at 8:41 PM EDT on Jul 31, 2017

A Rhode Island offshore wind developer has entered the fray of companies vying for the largest renewable energy contract in New England history.

Deepwater Wind announced plans Monday for a 144-megawatt wind farm about 12 miles off Martha's Vineyard that it says could power roughly 70,000 homes. The Providence-based-company already operates a small wind farm off Block Island. It says it'll pair the proposed farm with a battery storage system provided by Tesla.

Massachusetts is seeking projects to provide up to 1,200 megawatts of energy from water, wind and solar power. The deadline for proposals was July 27. The state says all bids will be made public later this week.

Among the announced bidders are TDI New England; Emera Inc.; Eversource; Central Maine Power and Avangrid; National Grid and Citizens Energy.



NBC Boston

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Associated Press

Offshore Wind Developer Announces Clean Energy Project

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July 31, 2017, at 5:51 p.m.

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Final RFP: Wind power coming three months earlier

By Jennette Barnes



Posted Jun 29, 2017 at 9:52 PM

Updated Jun 29, 2017 at 9:52 PM

NEW BEDFORD — Massachusetts' first offshore wind contract should be finalized in July of 2018, three months earlier than originally planned.

Three electricity companies issued their final request for proposals Thursday in conjunction with the Massachusetts Department of Energy Resources. The RFP sets a shorter timeline and calls for proposals of 400 megawatts of energy generation. It also allows bidders to submit supplementary proposals of 200 to 800 megawatts.

The timeline is good news for developers, because it lets them start work during the 2018 construction season.

“We were pushing for that,” said Erich Stephens, chief executive officer of Vineyard Wind, one of three potential bidders. “We really want to get to work as soon as we can.”

Vineyard Wind, which is owned by Copenhagen Infrastructure Partners of Denmark, hosted a ribbon cutting and reception Thursday for its New Bedford office, in the Bank of America building on Pleasant Street. Two other companies also hold federal leases for offshore wind power off Massachusetts: Rhode Island-based Deepwater Wind, which opened a New Bedford office in February, and DONG Energy of Denmark, which has an office in Boston.

The final RFP calls for one or more winning bidders to be identified by April 23.

A landmark state law signed last summer requires electricity distribution companies — Eversource, National Grid, and Unitil — to buy long-term contracts for at least 1,600 megawatts of offshore wind power in the next decade. That's enough to power hundreds of thousands of homes.

The potential for a contract of up to 800 megawatts is something that DONG Energy requested. The others asked for a lower ceiling.

The RFP says the utilities are looking for 400 megawatts but could consider up to 800 if a larger project is superior and produces more economic benefits for ratepayers.

In a written statement, DONG Energy's North America president, Thomas Brostrøm, said the

company believes a project generating 400 to 800 megawatts will produce the lowest cost of electricity.

Deepwater Wind CEO Jeff Grybowski issued a written statement that read in part: “We’re confident we can deliver clean energy at the right size and the right price for Massachusetts ratepayers, and at the same time put people to work right here in the commonwealth.”

South Coast Today

New Bedford panel speaks on cost, technology of offshore wind

Thursday

Posted Feb 16, 2017 at 10:46 AM

Updated Feb 16, 2017 at 5:05 PM

By Michael Bonner mbonner@s-t.com

NEW BEDFORD — The turbines set to be erected off the coast of Massachusetts drew comparisons to the iPhone 7 and Fenway Park during a panel discussion at the Waypoint Event Center on Thursday morning.

Matthew Morrissey, the vice president of Massachusetts Deepwater Wind, highlighted the advances in technology by labeling older turbines as "old Motorola phones" while favorably boasting about the future market in New Bedford as the latest smart phone. Paul Vigeant, managing director of the New Bedford Wind Energy Center, used one of the most famous sites in the state to put in perspective the colossal size of the construction.

"A 10-megawatt turbine, you could not fit the assembly in Fenway Park," Vigeant said. "Those on block island are 100 feet shorter than the Hancock Building (in Boston)."

The impact for New Bedford and the state may be just as massive.

Panelists answered questions from an audience of about 100 people. They discussed costs, sustainability and job growth.

Michael Ausere, vice president of energy development at Eversource, joined Morrissey as energy executives. Derek Santos joined Vigeant as members of the New Bedford's Economic Development Council. Ed Washburn, executive director of New Bedford's Harbor Development Commission, acted as a liaison between the offshore energy developers and the local mariners that use the waters on a daily basis.

"We didn't locate here for my commute," Morrissey said. "We located here because we want to be a part of the community and talk about the concerns of the fishing industry."

New Bedford gained notoriety as 'The city that lit the world' in mass producing whale oil. Centuries later, clean energy leaders hope to cultivate the city's generations old expertise on the ocean.

The Herald News

Deepwater Wind may fund UMass look at intersection of offshore wind, fishing

By Michael P. Norton State House News Service

Posted at 1:32 PM

UMass Dartmouth is gearing up to lead a five-year, \$1 million initiative to examine how offshore wind farms can coexist with commercial fishing and other industries.

Deepwater Wind, which operates a wind farm off Block Island and hopes to build a bigger one south of Martha's Vineyard, plans to bankroll the effort, which will be called the Blue Economy Initiative, the company announced on Thursday. However, the sponsorship agreement is contingent on the approval by state utilities of Deepwater Wind's 144 megawatt, 24-turbine utility-scale Revolution Wind project.

The UMass Dartmouth School for Marine Science and Technology (SMAST) would take the lead role on the work, via the Massachusetts Marine Fisheries Institute.

"This agreement recognizes the unique expertise of the School for Marine Science and Technology faculty in the areas of marine habitats, fisheries, ocean observation and modelling, as well as other fields that are critical to every stage of offshore wind development," SMAST Dean Steven Lohrenz said. "Meanwhile, our sister campuses stand ready to contribute their expertise in turbine design, blade materials, and other technology innovation areas."

Deepwater's project 15 miles off the Vineyard is being paired with a 40 megawatt-hour battery storage system provided by Tesla.



NEW BEDFORD — UMass Dartmouth is gearing up to lead a five-year, \$1 million initiative to examine how offshore wind farms can coexist with commercial fishing and other industries.

Deepwater Wind, which operates a wind farm off Block Island and hopes to build a bigger one south of Martha's Vineyard, plans to bankroll the effort, which will be called the Blue Economy Initiative, the company announced on Thursday.

However, the sponsorship agreement is contingent on the approval by state utilities of Deepwater Wind's 144 megawatt, 24-turbine utility-scale Revolution Wind project.

The UMass Dartmouth School for Marine Science and Technology (SMAST) would take the lead role on the work, via the Massachusetts Marine Fisheries Institute.

"This agreement recognizes the unique expertise of the School for Marine Science and Technology faculty in the areas of marine habitats, fisheries, ocean observation and modelling, as well as other fields that are critical to every stage of offshore wind development," SMAST

Dean Steven Lohrenz said. "Meanwhile, our sister campuses stand ready to contribute their expertise in turbine design, blade materials, and other technology innovation areas."

Deepwater's project 15 miles off the Vineyard is being paired with a 40 megawatt-hour battery storage system provided by Tesla.

--Michael P. Norton, State House News Service



CAPE COD TIMES

Deepwater may fund UMass offshore wind, fishing study

By Michael P. Norton Posted Nov 16, 2017

UMass Dartmouth is gearing up to lead a five-year, \$1 million initiative to examine how offshore wind farms can coexist with commercial fishing and other industries.

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The UMass Dartmouth School for Marine Science and Technology, or SMAST, would take the lead role on the work, via the Massachusetts Marine Fisheries Institute.

STATE HOUSE NEWS SERVICE

FRIDAY, NOV. 17, 2017

STATE CAPITOL BRIEFS - THURSDAY, NOV. 16, 2017

STATE HOUSE NEWS SERVICE

DEEPWATER MAY FUND UMASS LOOK AT INTERSECTION OF OFFSHORE

WIND, FISHING

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Deepwater's project 15 miles off the Vineyard is being paired with a 40 megawatt-hour battery

storage system provided by Tesla. - Michael P. Norton/SHNS

CapeCod.com

Study: No Significant Threats to Wildlife From Offshore Wind Development

 October 27, 2016



BOSTON – State and federal officials have released a pair of studies that found no significant threats to marine wildlife from offshore wind development.

The studies, which were an effort by MassCEC and the U.S. Bureau of Ocean Energy, found no significant threats to endangered whale, turtle or bird species in federal wind energy areas which start 14 miles south of Martha’s Vineyard.

The studies also identified opportunities to minimize impacts to marine wildlife in those areas.

Researchers conducted the surveys using underwater acoustical buoys as well as aircraft flights staffed with observers.

The large whale and sea turtle survey team was based at the New England Aquarium and a second team from the College of Staten Island studied impacts on seabirds.

“As the Commonwealth begins to harness the benefits of offshore wind power generation, it is

imperative that we balance innovation with our obligation of environmental stewardship for the waters surrounding our state,” said Energy and Environmental Affairs Secretary Matthew Beaton. “These studies will streamline the permitting process for an emerging energy growth sector while protecting the environment so the Commonwealth can solidify its position as a hub of energy innovation while creating high-quality jobs and providing cost-effective power for ratepayers.”

The whale and turtle data was collected from 76 aerial surveys conducted in the study area between October 2011 and June 2015. The data was supplemented by more than 1,000 days of continuous underwater acoustic recording for whales.

Throughout their observations, researchers from the New England Aquarium sighted 60 North Atlantic right whales, a critically endangered species, over the entire study only during winter and spring.

The North Atlantic right whales primarily migrate into the area and engage in short-term feeding before moving onto feeding grounds throughout the Gulf of Maine.

Researchers from the College of Staten Island recorded 25 species of seabirds from a total of 38 aerial surveys conducted between November 2011 and January 2015. Two locations, known as “hotspots”, were identified where larger than average aggregations of seabirds occurred on a regular basis.

Both hotspots were located outside the federal wind energy areas.

The U.S. Department of the Interior’s Bureau of Ocean Energy Management has lease agreements with three offshore wind developers – Deepwater Wind, DONG Energy, and Offshore MW – to build projects in the federal waters south of Massachusetts.



Off the coast of Cape Cod, renewable energy companies rush to harness the wind

NEWS



By Chris Bentley August 22, 2017 - 6:22pm

Massachusetts is on the cusp of an explosion in offshore wind energy.

The ocean shelf off Cape Cod holds an untapped 1,600 megawatts of wind energy—enough to power 800,000 homes—that's currently up for grabs.

Some of the world's biggest developers of offshore wind energy are competing to win the state's first open bid under a new state law that calls for Massachusetts to get 1,600 megawatts of electricity from offshore wind power by 2027. Proposals are due Dec. 20, and the state is expected to pick winners by April of next year.

It will still be years before Massachusetts ratepayers get electricity from offshore wind, but the state's recent request for proposals could be the first ripple in a coming wave of renewable energy development off the coast of Massachusetts that could transform the New England power grid.

“Offshore wind is mainstream and it is coming to the U.S. in a big way,” Jeffrey Grybowski, CEO of wind developer Deepwater Wind, said in a statement. Deepwater Wind recently opened the country's first offshore wind farm, off the coast of Rhode Island's Block Island, and has floated a proposal to partner with Tesla to build the world's largest battery storage system for offshore wind energy in Massachusetts.

“Now that there’s just a little momentum building behind this I think that you will start to see sort of a groundswell of activity,” said Steve Pike, CEO of the Massachusetts Clean Energy Center, the state’s research and investment arm for renewable energy. Last year Gov. Charlie Baker signed The Energy Diversity Act, calling for the state's utilities to procure 1,600 megawatts of offshore wind power by 2027. Industry leaders say that galvanized investment in offshore wind.

In December the Norwegian multinational Statoil [agreed to pay nearly \\$42.5 million](#) to lease 79,350 acres off the coast of New Jersey—a figure shockingly high to some industry observers. “That was a huge surprise to everybody,” Pike said. That lease, which could eventually accommodate up to a gigawatt of offshore wind power, may start generating electricity before the Massachusetts sites currently up for bid, he said—and it’s a sign of growing interest in the market.

The three companies currently bidding to develop nearly 400,000 acres off Martha’s Vineyard include several of the industry’s biggest players. Deepwater Wind developed the first offshore wind farm in the U.S. Bay State Wind LLC is run by the Danish giant DONG Energy, which built the world’s first offshore wind farm in Denmark more than 25 years ago, as well as the American energy company Eversource. Vineyard Wind is a joint venture set up by the Danish investment fund Copenhagen Infrastructure Partners and the U.S. wind energy developer Avangrid.

“The fundamentals are just so right for offshore wind in Massachusetts,” said Erich Stephens, CEO of Vineyard Wind.

Stephens said offshore wind makes sense in Massachusetts because most of the state's electricity demand comes from its densely populated coastal region, close to where offshore wind farms will be. Renewable energy advocates also note that wind energy can help the state cut down on imported fossil fuels.

“You either can build more infrastructure to bring more energy into New England through gas pipelines,” Stephens said, “[or] with offshore wind you’re building that ability to get your energy from right here in New England.”

Advocates also point to the potential for green jobs in the state—something Massachusetts is actively trying to encourage with renewed investment in its Marine Commerce Terminal in the historic fishing port of New Bedford.

The 26-acre terminal was originally intended to facilitate shipping and installation work for the wind turbines on the [ill-fated Cape Wind project](#), which sought to build 130 turbines off the coast of Nantucket. That project died in 2015 after years of public opposition, leading critics to

call the marine terminal a waste of taxpayer money.

All three companies bidding to develop Massachusetts' first offshore wind farm have also leased space in the New Bedford marine terminal, now positioned to be the operations and maintenance hub for the state's nascent offshore wind industry.

Steve Pike of the Massachusetts Clean Energy Center said most of the major components of wind turbines, including their blades, are too expensive to manufacture in New England now, and will likely be shipped from Europe at first. The U.K., [which boasts the world's biggest offshore wind sector](#), is promoting domestic manufacturing of offshore wind turbines in several ports whose traditional industries—typically fishing and shipbuilding—have long been on the decline. That description fits New Bedford, whose historic whaling industry inspired Herman Melville's "Moby Dick."

"That's certainly something that we would like to have in Massachusetts, but we're also realistic that at this point in time that may not make sense," said Pike. "It's going to take some sort of critical mass of projects before those supply chain companies really establish those facilities in the U.S."

Even without much domestic manufacturing, the terminal is busier than it has been since its inception in 2015, said Vineyard Wind's Eric Stephens.

"Our office has a view out on the port and we see the survey vessels going out to study the sea floor," he says. "It seems like every day there's someone passing through."



NECN

Will New England Lead the World in Wind Power?



Published at 7:35 PM EST on Aug 16, 2017

One company's vision of "the world's largest combined offshore wind and energy storage project." Matthew Morrissey, Deepwater Wind VP for Massachusetts, joins Sue to unveil the "Revolution Wind" proposal.



CAPE COD TIMES

Blend of wind, battery hopeful for clean energy

[Cape Cod Times](#)

The two big complaints about offshore wind power in recent years are that it's unsightly and unavailable when the wind stops blowing.

As you reported ("Deepwater Wind taking 2 shots at Massachusetts energy procurement," Aug. 1), a proposal seems to have answers to both those objections.

The proposed wind farm won't ruin anybody's view — at 12 miles south of the Vineyard and 30 miles from the mainland, nobody should complain. But the real innovation here is that the developer has proposed providing battery storage to ensure the project can meet the state's requirement for power delivery at times of peak demand. The battery system, from Tesla, would be sited near Brayton Point in Somerset.

This proposal has the advantage of using power generated right here in Massachusetts instead of shipping it in from Canada or New York on expensive and disruptive new transmission lines. And the developer says it can compete on price with hydropower and onshore wind.

The combination of offshore wind and battery storage may be just what's needed to keep energy jobs in the state and provide affordable and reliable clean power to the region.

Frederick Hewett Cambridge

The logo for POLITICO, featuring the word "POLITICO" in white, uppercase, sans-serif font inside a dark red rectangular box.

Politico

August 4, 2017

"Wind power charging up," by Jordan Graham, Boston Herald:

"Energy companies have filed dozens of proposals to provide Massachusetts utilities with clean energy, including an offshore wind farm that uses Tesla batteries to store extra energy, as renewable energy providers try to compete on price with traditional power sources. 'This would be the biggest pairing of offshore wind and batteries anywhere in the world,' said Jeffrey Grybowski, chief executive of Deepwater Wind. 'We'll take the wind power that we're producing in the middle of the night, charge up the batteries, and in the peak hours in the afternoon we can discharge the batteries.'"

08.02.17

This New Offshore Wind Project Plans To Combine Turbines And Storage

By linking turbines to giant batteries supplied by Tesla, the proposed Revolution Wind Farm aims to demonstrate how offshore wind can become a consistent source of renewable energy.



[Photo: andrej67/iStock]

BY EILLIE ANZILOTTI

As shifting to renewable energy has become ever more imperative in the face of the indelible link between coal and fossil fuels and climate change, wind power has run into a bit of an image problem. Solar, with its ability to scale to both large farm installations and residential rooftops, has attracted the bulk of Silicon Valley buzz. Wind turbines, on the other hand, are less

adaptable; they're seen as a necessity in the renewable landscape, but a large and cumbersome one.

But advances in offshore developments are reigniting interest in wind energy's potential. That trend, combined with collaboration from Tesla, is gearing up to make Revolution Wind Farm—an offshore project proposed for 12 miles off the coast of Martha's Vineyard in Massachusetts—a development that signals a significant turning point for wind energy.

On July 31, Deepwater Wind—the company behind both a 90 MW project proposed for 30 miles off the coast of Montauk and the 30 MW Block Island Wind Farm near Rhode Island, the U.S.'s first successful offshore venture—announced plans for Revolution Wind Farm. The 144 MW project would generate enough energy to power 80,000 homes, and attach to a 40 megawatt-hour battery storage system provided by Tesla.



[Photo: andrej67/iStock]

“Revolution Wind will be the largest combined offshore wind and energy storage project in the world,” Deepwater Wind CEO Jeff Grybowski said in a press release. “People may be surprised by just how affordable and reliable this clean energy combo will be. Offshore wind is mainstream and it is coming to the U.S. in a big way.”

Offshore wind may be mainstream in Europe, where pressure from the European Union to move away from fossil fuels and toward renewables sparked an offshore boom that began in 2011 and has helped bring the share of wind energy in Europe's energy portfolio up to 12% from 2% just six years ago (one out of every three wind turbines installed in Europe now is offshore; in 2011, it was just around 5%). In the U.S., however, high costs, regulatory hurdles, and objections from those who have paid a hefty sum for their seaside views and would rather them not be interrupted

by rows of turbines, have hindered a similar boom.

But both Massachusetts and New York have implemented aggressive renewable energy portfolio standards that set steep goals for switching to renewable sources—New York Governor Andrew Cuomo has mandated that 50% of the state’s energy come from renewables by 2030, and Massachusetts legislators are agitating for 100% renewable by 2035—driving more investment in alternative energy sources. For small coastal states like Massachusetts, with little land to devote to massive onshore wind farms, offshore developments are just common sense.

The buy-in of Tesla both lends further appeal to the project, and also tackles the longstanding problem of renewable energy storage. One of the biggest questions in switching to clean energy is how to ensure the supply remains constant. Without viable storage, solar power is ineffective at night, and wind is useless on a still day. Linking the generating mechanism to large batteries would solve that problem, but so far, batteries have mostly been connected just to solar panels. Tesla has developed batteries to facilitate both residential and large-scale energy storage (the Tesla PowerPack, for instance, is composed of 16 pods and measures around 7 feet tall), but Revolution Wind will be Elon Musk’s first foray into wind-energy storage.

Because the project has yet to be approved by the state of Massachusetts, Tesla declined to comment. But should it get a green light and begin operations in 2023, Deepwater claims Revolution Wind will help the state accomplish two things. Firstly, the addition of battery storage will even out the reliability of the energy, eliminating the need to construct other generating facilities to fill the gaps in wind energy supply. And secondly, showing proof-of-concept with this relatively small, battery connected offshore development will pave the way for larger projects to take off—which will eventually drive down manufacturing and implementation costs.

Wind farm with Tesla battery storage proposed for offshore Massachusetts

The development could power 80,000 homes with clean energy.



The first foundation jacket installed by Deepwater Wind in the nation's first offshore wind farm construction project is seen next to a floating construction crane on the waters of the Atlantic Ocean off Block Island, R.I. CREDIT: AP Photo/Stephan Savoia



Samantha Page [Follow](#)

Climate Reporter at @ThinkProgress. Send your hot, dry tips to spage@thinkprogress.org
Aug 1 · 3 min read

Massachusetts might be getting a massive new wind farm that uses Tesla batteries to store

energy.

Deepwater Wind, a wind energy development company, has proposed a 144-megawatt wind farm with 40-megawatt hours of battery storage for a site 30 miles from mainland Massachusetts and 12 miles south of Martha's Vineyard, the company announced Tuesday.

In 2008, Massachusetts passed a law requiring the state to “establish goals and meet targets for the reduction of greenhouse gas emissions.” Under the law, titled the Climate Protection and Green Economy Act, the state pledged to reduce its greenhouse gas emissions by 25 percent below 1990 levels by 2020.

Last year, a court ruled that the state had not acted adequately to meet its emissions reductions goals. Following the ruling, Gov. Charlie Baker (R) signed an executive order directing state agencies to, essentially, do better.

Electricity accounts for roughly a third of greenhouse gas emissions in the United States, so meeting any goals for reducing emissions includes changing how electricity is generated. In April, the state issued a request for clean energy proposals, due Friday. The request was put forward by the Massachusetts Department of Energy Resources (DOER) in conjunction with the state's utilities, specifically to meet state emissions reduction goals. Deepwater Wind hopes to be one of the contracts that moves forward.

At 144-MW, Revolution Wind will be able to power roughly 80,000 homes and is nearly five times as big as Deepwater Wind's previous U.S. development, a 30-MW wind farm off the coast of Block Island, Rhode Island, that went online in November. Block Island had previously sourced most of its electricity from diesel generators.

According to the company, Revolution Wind will be the “largest combined offshore wind and energy storage project in the world.”

Battery storage is considered a critical component for intermittent energy sources — such as wind or solar. Because electricity is deployed in real time, at the moment it is needed, utilities have historically used “peaker plants” to handle high demand and baseload plants for continuous demand. Peaker plants are often run off natural gas and can produce electricity quickly, but are less efficient. Baseload, which has been primarily coal for much of the country's history, provides a steady output. With storage, utilities can gather wind energy as it is generated and deploy it as it is needed.

“People may be surprised by just how affordable and reliable this clean energy combo will be,” Deepwater Wind CEO Jeff Grybowski said in a statement. “Offshore wind is mainstream and it is coming to the U.S. in big way.”

The current project is small enough to develop in a “single building season,” the company said, and developers will be able to “phase in later projects,” if needed.

“Revolution Wind is flexible and scalable. That’s a serious advantage of offshore wind — we can build to the exact size utilities need,” Grybowski said. “We can build a larger project if other New England states want to participate now or we can start smaller to fit into the region’s near-term energy gaps. And our pricing at any size will be very competitive with the alternatives.”

Deepwater Wind also announced it would base its operations in New Bedford, Massachusetts, a port town that was once the world’s whaling center. The company said it would create hundreds of jobs for the region.

Overall, the wind industry employs more than 100,000 people, according to the Department of Energy.

TheStreet

The Street

Forget the Model 3, Tesla Could Be in Wind Farms

Kinsey Grant

Aug 1, 2017 10:00 PM EDT



Deepwater Wind LLC wants to partner with Tesla Inc (TSLA) by pairing Tesla's batteries with massive offshore wind turbines to provide Massachusetts with clean energy, Bloomberg reported.

Deepwater CEO Jeff Grybowski said the proposed 144-megawatt development would stockpile electricity produced at night and deliver it to the grid when most needed.

Deepwater submitted its bid for the project in response to a request from National Grid Plc (NGG) , Until Corp (UTL) and Eversource Energy (ES) for about 9.45 million megawatt-hours of annual clean energy supply. Massachusetts is set to award the bids in December and make them public this week.

The contracts require most energy to be delivered during late winter afternoons and evenings. The Tesla batteries will ensure that Deepwater wind turbines can efficiently send energy to the mainland during those times.

Tesla shares traded down slightly in early afternoon trading.



Tech Crunch

Offshore U.S. wind farm proposal uses Tesla batteries to store power

Posted 4 hours ago by [Darrell Etherington \(@etherington\)](#)



Tesla's energy business is focused in part on solar power generation, but a big component of the business hopes to use its Powerpack commercial storage batteries in tandem with renewable power generation to store energy until it's needed. A new proposal, reports Bloomberg, by energy supplier Deepwater Wind would use Tesla's batteries in a new offshore wind plant near Massachusetts for exactly that purpose.

The plan, which is one of the bids submitted to a request for proposals to supply power to the state of Massachusetts, would see a production facility with 144-megawatt capability build off

the coast. The batteries from Tesla would then store the wind-generated energy at peak production times, and hold it in reserve for peak demand hours. It's exactly how other Tesla Powerpack facilities function, including its Kauai energy storage installation, which opened earlier this year.

The proposed plan includes a 40-megawatt storage capacity, which is less than either 52 MWh facility on Kauai, or the planned 100 KWh set for construction in Australia. But the unique offshore installation would add yet another example of how Tesla's battery storage can supplement a range of power generation methods, which would help with its larger goal of demonstrating how it can be applied to a wide variety of requirements.

Deepwater will still have to compete with other bids, but it's already built the first ever U.S. offshore wind farm near Rhode Island.

Dow Jones

Tesla Building Wind -Farm Energy Storage System -- Market Talk

The offshore wind industry continues gaining speed in the US, and Tesla (TSLA) is joining in. The car and battery maker will provide an energy storage system for a newly-proposed offshore wind farm that would be built by Deepwater Wind, the developer behind the nation's first offshore wind farm. Deepwater Wind says the 144-megawatt project, if approved, will be paired with a 40-megawatt-hour battery system provided by TSLA, and built about 12 miles south of Martha's Vineyard. Deepwater Wind has two other proposed offshore wind farms: a 90-megawatt project that would serve Long Island and a 120-megawatt project to serve Maryland.

(erin.ailworth@wsj.com; @ailworth)

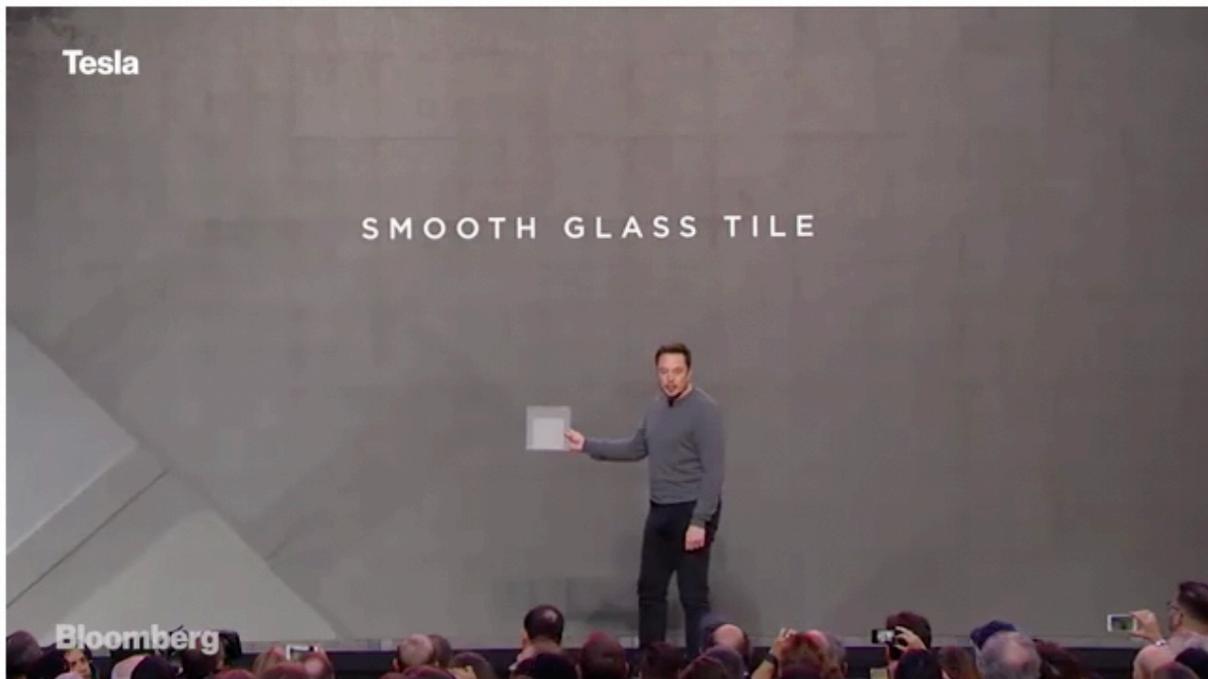
Tesla Batteries May Back Up Wind Farm Off Massachusetts Coast

By **Joe Ryan**

July 31, 2017, 6:39 PM EDT *Updated on August 1, 2017, 12:01 AM EDT*

From **Climate Changed**

- Deepwater Wind unveils plans for project off Massachusetts
- Would meet request for annual 9.45 million megawatt-hours



Tesla's Sexy Solar, Massive Batteries and Fast Cars

Deepwater Wind LLC is proposing to pair Tesla Inc. batteries with massive offshore wind turbines as part of a bid to supply the state of Massachusetts with clean energy generated at sea.

The 144-megawatt development would stockpile electricity produced late at night, then deliver it

when the grid needs it most, Deepwater Chief Executive Officer Jeff Grybowski said in an interview Monday.

Deepwater submitted its bid last week in response to a request from National Grid Plc, Unitil Corp. and Eversource Energy for about 9.45 million megawatt-hours of annual clean energy supply. The contracts -- open to hydro-electric, solar and other forms of clean energy -- require the majority of power to be delivered during late winter afternoons and evenings.

“Those hours are very valuable to the grid,” said Grybowski, who plans to use a 40-megawatt storage system. “The battery will ensure that we can do that.”

Massachusetts will award the contracts in December and is expected to make the bids public this week, Grybowski said. Deepwater, which built the first U.S. wind farm off Rhode Island, also plans to compete later this year for contracts limited exclusively to offshore wind developers to comply with a Massachusetts law to aggressively develop the nascent industry in the U.S.



Mass Live

Trade union and wildlife advocates tour Block Island Wind Farm

Updated on June 15, 2017 at 3:47 PM, Posted on June 15, 2017 at 3:25 PM

BY [MARY C. SERREZE](#)

Special to The Republican



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Block Island Wind Farm

Platforms, abutments, towers and turbines mark the Block Island Wind Farm off the coast of Rhode Island.



2 / 13

General Electric Wind Power Turbine

Deepwater Wind developed the proof-of-concept project with turbines by General Electric.



3 / 13

Matthew Morrissey

Matthew Morrissey, Deepwater Wind Massachusetts VP, talks about the Block Island Wind Farm while touring the facility with trade union and wildlife advocates on June 13, 2017.



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Block Island Ferry passengers

Participants in a June 13, 2017 tour of Block Island Wind Farm seated on the deck of a high-speed ferry.



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Block Island

Block Island as seen from the Rhode Island High Speed Ferry; June 2017.



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Block Island

Block Island as seen from the Rhode Island High Speed Ferry; June 2017.



7 / 13

Woman on Block Island Ferry

A woman looks out to sea from the railing of the Rhode Island Fast Ferry.



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Ferry Landing Equipment

The entrance to the commercial dock facility in North Kingstown, Rhode Island.



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Quonset Point Port of Davisville

The Quonset Point Port of Davisville at North Kingstown, Rhode Island.



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Quonset Point Port of Davisville

The Quonset Point Port of Davisville at North Kingstown, Rhode Island.

Environmentalists and labor unions don't always see eye to eye when it comes to energy projects -- but during a recent nautical excursion to America's first offshore wind farm, tension between the two camps was nowhere to be found.

On the dock at North Warwick, Rhode Island on Tuesday, union leaders mingled with wildlife advocates in the blistering heat, boarded a Rhode Island High-Speed Ferry vessel, and headed out to the Atlantic through Narragansett Bay from the Quonset Point Port of Davisville at a pace of 30 knots.

The temperature dropped and Block Island Wind Farm appeared on the horizon, with its five spinning turbines, bright-yellow steel abutments, and towers nearly as tall as a football field.

The \$290 million, 30-megawatt demonstration project, manufactured by Deepwater Wind and General Electric, went live on May 5 after nearly a decade of planning.

The wind farm now supplies nearly all power used by Block Island, located around four miles to the northwest. The project replaced a large diesel generator that provided the island's power for years, slashing emissions and cutting the cost of electricity in half. Additional power is cabled to the mainland and connects to the New England grid.

The turbines and propellers, while operating that day at about 50 percent capacity, can withstand a 1,000-year storm, said Deepwater Wind Vice President Matthew Morrissey. "Storms are good for business," he said.

More than 300 union workers helped construct the project, using Rhode Island ports at Block Island, Galilee, Quonset Point and Providence, Morrissey said.

Tuesday's tour was hosted by the National Wildlife Federation, the Rhode Island Building & Construction Trades Council and the Blue Green Alliance, a coalition of labor and environmental groups that pushes for clean infrastructure projects.

"We've found common ground in well-designed offshore wind projects," said Catherine Bowes, senior manager with the National Wildlife Federation. "This is a shining example of how to do it right."

She said Deepwater Wind timed its construction and used noise reduction technology to prevent harm to migrating whales and other marine mammals, and took steps to protect other species.

Climate change is a big threat to marine life, said Bowes. "We've seen fish populations migrate north due to sea temperature change, and harm to coastal habitats due to rising waters." She said for that reason, the organization supports efforts to decarbonize the nation's electrical grid.

Roy Coulombe, business manager of the Local 37 Ironworkers, said 40 union laborers worked on the Block Island project for over two years out of the Port of Providence.

"This is a great opportunity," he said. "It's historic and exciting. And there's a lot more coming."

Coulombe said the next project is the 90-megawatt South Fork Wind Farm off the coast of Long Island, another Deepwater Wind project. The 15 turbines will deliver electricity directly to the town of East Hampton in a deal with the Long Island Power Authority.

Mike Williams, a staffer with the Blue Green Alliance, said offshore wind projects generate clean electricity while creating good trade, technical and professional jobs.

"These projects require highly skilled labor, construction management, engineering and project oversight," he said. "You want people who know what they're doing."

While the Block Island Wind Farm is a small, proof-of-concept project, larger offshore wind developments are on the horizon.

In 2016, Gov. Charlie Baker signed an energy bill requiring Massachusetts utilities to procure up to 1,600 megawatts of offshore wind power. By the end of this month, three firms with federal offshore leases -- Deepwater Wind, Vineyard Wind and Baystate Wind -- will submit competitive proposals to Eversource, National Grid and Unitil.

Deepwater is working with National Grid; Baystate Wind represents a partnership between the Danish DONG Energy and Eversource, and Vineyard Wind, formerly OffshoreMW, is partnering with Avangrid. Morrissey said he believes the bids will come in at rates that are

"surprisingly low," and touted the virtues of competition. Approved contracts will go before the Department of Public Utilities on Nov. 1, 2018.

Several coastal states are getting into the game. New York has committed to 2,400 megawatts of offshore wind. Maryland approved applications for two projects, and a lease auction was recently held off the shore of North Carolina.

As the ferry returned to the mainland, the twin cooling towers of the former 1,500-megawatt Brayton Point coal plant could be seen in the distance. Brayton Point, Massachusetts' last remaining coal plant, went dark and unplugged from the grid for good on June 1.

The Boston Globe

WEDNESDAY, JUNE 14, 2017



Labor leaders and environmentalists took a boat tour Tuesday of the country's first offshore wind farm, a five-turbine project off the coast of Block Island in Rhode Island that can supply power for as many as 17,000 homes.

The 30-megawatt Deepwater Wind project opened about six months ago and is a prelude to a much bigger development that's expected to occur nearby, in Massachusetts waters. A 2016 energy law will require the state's biggest utilities to buy offshore wind power, and state regulators in Massachusetts are developing rules for how that will happen.

During the next decade, it could bring dozens of windmills to the area south of Martha's Vineyard.

Providence-based Deepwater Wind is one of three potential bidders in the Massachusetts process.

JON CHESTO



The Deepwater Wind project off of Block Island in Rhode Island is the first offshore wind farm in the country. Other similar projects may follow in Massachusetts, off the coast of Martha's Vineyard and Nantucket.

PHOTOS BY DAVID L. RYAN/GLOBE STAFF

The Boston Globe

The Boston Globe

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The 30-megawatt Deepwater Wind project opened about six months ago and is a prelude to a much bigger development that's expected to occur nearby, in Massachusetts waters. A 2016 energy law will require the state's biggest utilities to buy offshore wind power, and state regulators in Massachusetts are developing rules for how that will happen.

Wind turbines off of Block Island first of their kind



The Deepwater Wind project off of Block Island in Rhode Island is the first offshore wind farm in the country. Other similar projects may follow in Massachusetts, off the coast of Martha's Vineyard and Nantucket.

By Jon Chesto | GLOBE STAFF JUNE 13, 2017

During the next decade, it could bring dozens of windmills to the area south of Martha's

Vineyard.

Providence-based Deepwater Wind is one of three potential bidders in the Massachusetts process.

The tour on Tuesday was hosted by the National Wildlife Federation, BlueGreen Alliance, and Rhode Island Building & Construction Trades Council.







CAPE COD TIMES

Cape Cod Times

Labor, environmentalists tout first U.S. offshore wind farm



The five turbines that make up the Block Island Wind Farm spin as the Rhode Island fast ferry, the Ava Pearl, navigates around them during a tour Tuesday. - [Merrily Cassidy/Cape Cod Times]



Matthew Morrissey, Deepwater Wind vice president, speaks about the Block Island Wind Farm Tuesday during a tour organized by the National Wildlife Federation, Blue Green Alliance and Rhode Island Building and Construction Trades Council. [Merrily Cassidy/Cape Cod Times]



The view from the ferry Ava Pearl during a tour of the Block Island Wind Farm on Tuesday. [Merrily Cassidy/Cape Cod Times]

By Mary Ann Bragg



Posted Jun 13, 2017 at 8:20 PM

Updated at 6:29 AM

NORTH KINGSTOWN, R.I. — With the country’s first offshore wind farm up and running for the past six months, labor and environmental advocates are looking toward future collaborations on even larger projects.

“Many years of hard work ensured that these were good quality union jobs that paid good solid wages,” said Kimberly Glas, executive director of BlueGreen Alliance, a coalition of labor unions and environmentalists, as a chartered boat neared the Block Island Wind Farm on Tuesday.

As more offshore wind energy projects are developed off New England and New York more grassroots effort is needed, Glas said.

“I ask folks to start calling their legislators and start showing up at city council meetings to figure out ways to ensure that these are quality jobs,” she said.

The nonprofit National Wildlife Federation sponsored the boat tour of the 30-megawatt, five-turbine wind farm installed by Deepwater Wind, one of three offshore wind energy companies

with plans to build more wind turbines on leased land south of the Islands. The federation, with 6 million members, wants to protect wildlife from the effects of climate change through clean energy options such as wind.

“This kind of (boat) trip allows our company to talk about how offshore wind can be built and has been built in the United States,” said Matthew Morrissey, Massachusetts vice-president for Deepwater Wind.

The partners in Block Island project were environmental groups, organized labor, government regulators, fishing groups and others, Morrissey said.

“It’s an opportunity to come together and see that you can actually build a new economy in America while protecting the environment,” he said about the tour.

Among the 115 people on board the fast ferry Ava Pearl were labor leaders representing union members such as welders, painters and crane operators who helped build the wind farm.

Construction of the wind farm created 300 local jobs, according to Deepwater Wind.

“They did sign an agreement to do it all union,” said Scott Duhamel of the Rhode Island Building and Construction Trades Council.

The political strength of unions in Rhode Island, with the support of congressional and state legislators, along with union representatives showing up at and speaking at public meetings, all helped seal the deal, Duhamel said.

“I have to admit they could do it without us but they didn’t,” he said. Deepwater Wind could have used non-union labor, Duhamel said. “They did it with us,” he said. “We feel our people are better trained.”

The typical wages of the union workers who worked on the wind farm ranged from \$28 to \$40 per hour plus benefits, union representatives said.

“We’re thankful to Deepwater for having trust not only in IBEW but the building trades in general,” said Michael Monahan, a regional vice-president of International Brotherhood of Electrical Workers.

While the construction of a wind farm employs many people in the short term, the long-term maintenance of the equipment creates more jobs, said Monahan and Rhode Island Department of Labor and Training Director Scott Jensen.

“We’re doing the commute that thousands and thousands of people are going to be doing over the next any number of years,” Jensen said as the boat passed alongside the towering turbines.

Monahan and others said they are hoping for more union contracts in upcoming offshore wind energy projects.

SouthCoast TODAY

South Coast Today

A day-long conference to connect local businesses with offshore wind developers and turbine makers kicks off Wednesday morning in Newton.

The Massachusetts Clean Energy Center is hosting a conference at the Boston Marriott Newton to identify potential connections between local industry and the three developers with federal lease areas off Massachusetts: Deepwater Wind, DONG Energy, and Vineyard Wind.

“It’s the first conference of its kind in Massachusetts, focused on building the supply chain to fuel the emerging offshore wind industry,” Clean Energy Center spokesman Craig Gilvarg said in an e-mail.

The conference aims to attract equipment suppliers, manufacturers, electrical service providers, civil engineers, heavy lift crane operators, and marine service providers.

It opens with a networking breakfast and scheduled addresses by three state officials: Matthew Beaton, secretary of energy and environmental affairs; Jay Ash, secretary of housing and economic development; and Rep. Patricia Haddad, D-Somerset, speaker pro tempore of the House of Representatives.

What follows are panel discussions with turbine manufacturers GE and Siemens, major offshore wind contractors, and the developers. Also planned are “matchmaking” sessions, in which representatives of those companies will meet with businesses for 10 to 15 minutes each.

The afternoon includes discussions of wind port infrastructure and doing business in Massachusetts.

ENR

Engineering News-Record

Engineering News-Record

March 29, 2017

*Debra K. Rubin and Mary B.
Powers*

Steel in The Water

Startup of First U.S. Offshore Wind Farm Propels Domestic Market

The ambitious Cape Wind project hit a wall after 15 years, but developers see water-based wind boost in the U.S. power mix.



The five-turbine, 30-MW Block Island wind farm, off the Rhode Island coast, is small but will cut islanders' high energy costs when it starts full operation in May. It portends market potential for larger projects in Northeast waters and maybe beyond, if logistics and economics can prove out.



Deepwater Wind President Chris van Beek, a veteran of the oil-and-gas sector, aims to boost the firm's U.S. offshorewind supply chain for larger Atlantic Ocean projects.



The Race Is On: Players Compete to Lease Atlantic Offshore Wind Areas



Massachusetts facility does R&D and tests turbine blades up to 90 m long to meet global design standards.



For an offshore project in Rhode Island, turbine supports were designed, fabricated and installed by Louisiana oil-and-gas firms.



Pilot scale Aqua Ventus wind farm in Maine was the first to connect to a U.S. grid.



A drone photo shows geotechnical work at the Lake Erie site of a planned six-turbine, 20.7-MW farm. Both projects received new levels of federal R&D support last year.

Fifteen years ago, developers of Cape Wind sought to jump-start the U.S. offshore-wind industry with an ambitious \$2.6-billion plan for a 130-turbine farm, off the lower Cape

Cod, Mass., coast, to generate 468 megawatts of new clean power. High-level opposition, on issues from blocked views to Indian burial grounds, stretched out its approvals, mired it in lawsuits and cost it key utility customers that made the project a distant bad memory.

But Cape Wind may turn out to be a blessing in disguise, setting the foundation to complete a smaller-scale operating farm, America's first, and spurring coastal states to boost offshore wind as a power-supply and economic driver.

This comes despite uncertain support from the current U.S. administration and critiques from President Donald Trump—in court and on Twitter—against a planned Scotland- sited project whose “really ugly turbines” would block his golf-course views.

Even so, the U.S. is set to add 86,000 MW of offshore wind power by 2050, which the U.S. Energy Dept. (DOE) says would cut greenhouse-gas emissions by 1.8% and support 160,000 U.S. jobs. Learning lessons from the Cape Wind saga, projects will be farther out to sea, particularly in the population-dense and land-constrained Northeast, where politicians see offshore wind's huge energy and economic benefits.

Massachusetts and New York, among others, have set ambitious wind goals. A governors' coalition also is pushing to extend the 30% renewable-energy investment tax credit and continue federal R&D support, or “we will cede leadership in these critical technologies to other nations,” they said in a February letter to Trump.

Meanwhile, DOE units such as the National Renewable Energy Laboratory (NREL), which pushes research, and the Bureau of Ocean Energy Management (BOEM), which manages ocean site leasing, are going gangbusters. “The offshore wind industry is about to take off,” says a bureau spokesman. “There is a lot of competitive interest out there.”

Off the coast of southern Long Island, N.Y., a 79,000-acre ocean site leased for \$42 million in December after 33 rounds of bidding. “Leases were going for a couple of hundred thousand dollars a few years ago,” says Bill White, an offshore-wind official with the Massachusetts Clean Energy Center who also notes a rise in unsolicited lease offers for potential wind farms.

Competitors Cross the Pond

The burgeoning market is drawing European energy giants now seeking to diversify from the sagging oil-and-gas sector, as well as private investors eyeing reliable returns in a regulated power marketplace. Offshore wind “is now not just green power but a new industry for infrastructure and jobs, made in America,” says Jim Lanard, co-founder and CEO of Magellan Wind.

In the wake of the New York lease frenzy, Interior Secretary Ryan Zinke offered some optimism about federal support to market participants, saying, “Offshore wind is one tool in the all-of-the-above energy toolbox.”

“Offshore wind has an economical right of existence,” says Chris van Beek, a Dutch-born marine construction veteran and president of Deepwater Wind, which last year completed the five-turbine Block Island wind farm, off Rhode Island's coast. “The next development wave of

projects should be based on that.”

The \$300-million project, which will supply islanders now using expensive diesel energy and feed excess power into the mainland grid via a new undersea cable, generated its first power on March 22 and is set to operate fully on May 1. Block Island’s power is not price-competitive on the mainland, but market participants see its completion as key.

Investors agree. “The first project was great to show it could be done,” says Jérôme Guillet, managing director of Green Giraffe B.V., a leading project investment adviser. “Hopefully, the next projects will be larger and have the scale to show attractive economics.”

Scaling Up

Deepwater Wind aims to make that happen, with work set to start by 2019 on a \$740- million, 90-MW farm off Long Island, N.Y., that could include up to 200 turbines. The local power authority in January approved a 20-year power-purchase agreement, allowing it to pay for delivered energy without taking on construction or operating risk.

The power price is confidential, but the agency says it is competitive with other clean- energy sources without being as land-intensive. Van Beek says the deal for his firm, owned mainly by hedge fund D.E. Shaw, will have “all signatures” this month. “We are in full project mode,” he says.

“There is very significant offshore-wind potential in the New York area—39 gigawatts in water depth for foundations fixed to the bottom. We have the benefit of shallow water,” says Doreen Harris, program manager for the New York State Energy Research and Development Authority. Pushed by Gov. Andrew Cuomo (D), New York has a newly- set 2.4-GW offshore-wind goal by 2030 and expects to complete a master plan late this year to cover grid interconnections, environmental issues and a competitive power- purchase mechanism.

Lars T. Pedersen, COO of Copenhagen Infrastructure Partners and co-CEO of lease competitor Vineyard Wind, says, “Improved technology allows turbines in deeper and deeper water, capturing more energy from each.” He says Cape Wind’s 130 proposed turbines now could generate more than 1 GW of energy.

Efficiencies that longer-operating European wind farms now generate are key.

Habib Dagher, a leading University of Maine researcher who is developing an innovative floating offshore-wind turbine prototype that will go into full-scale construction possibly this year, notes three European projects with 2016 power prices of 5.6 to 7.27 euro cents per kWh, not including transmission to shore. “This technology can now start to compete

on a cost basis, at least in Europe, so it is less dependent on government support,” he says, contenting that over 60% of the U.S. offshore wind resources can be harnessed.

Lorry Wagner—president of Lake Erie Energy Development Co., which seeks to build what would be the first U.S. freshwater wind farm on that lake—points to cost efficiency as “the perfect engineering challenge. How do [we] reach a price point?”

Maryland on May 17 will choose between proposals from Deepwater Wind and U.S. Wind, a unit of Italy's Totto Holdings, to build, beginning in 2020, turbines about 17 miles offshore.

Deepwater's van Beek notes the state's supply-chain challenges could include meeting disadvantaged-firm set-aside goals.

As part of a 2016-enacted law in Massachusetts requiring state utilities to sign long-term contracts for at least 1,600 MW of offshore-wind power from suppliers with leases at least 10 miles offshore, that state will issue an RFP on June 30 for what is expected to be between 400 MW and 800 MW of offshore wind.

Three firms with federal leases are set to bid. White expects a selection in early 2018. "We hope to have the first commercial-scale farm built in the U.S.," he says. "We have an extraordinary wind resource—an average of 21.4 mph, on par with the North Sea." Offshore proponents note that ocean wind is more sustained.

Southern coastal states have weaker wind strengths and lower power demand, so sector observers were pleasantly surprised that the latest federal lease for an offshore North Carolina tract was won last month by a unit of Spanish giant Iberdrola, which posted a \$9-million bid. "North Carolina is one more example of how this industry is active and forward-leaning," says Paul Rich, U.S. Wind's director of project development.

Industry observers expect a more aggressive push in New Jersey in January, when Gov. Chris Christie (R) leaves office.

Building A Supply Chain

Developers hope an explosion of offshore-wind projects will entice the supply chain, based in Europe and the Gulf of Mexico, to set up closer to the action.

Louisiana-based Keystone Engineering adapted an oil-platform design for the Rhode Island project's turbine structures, says the firm's project manager, Zach Finucane. A newer Keystone design, tested on a European project, could save 20% on foundation costs since it uses less steel and fewer components, says Finucane. Gulf Island Fabrication Inc. made the Block Island jackets in Houma, La., transporting them by barge. "We pursued the project for six years," says Roy Francis, the firm's vice president.

Pointing to the oil-sector downturn, "we're all struggling to stay solvent and functional," adds Joe Orgeron, chief technology officer of Montco Offshore, which, along with Weeks Marine, mobilized installation equipment for the 110-ft-tall turbines at Block Island. "We're putting eggs in a different basket."

Higher labor costs along the Atlantic coast and logistics impacts from federal laws governing non-U.S. vessels in U.S. waters remain challenges, says Benjamin Foley, a Keystone Engineering vice president. "Each state wants the supply chain established there. They will have to get around that and share," he says.

Adds U.S. Wind's Rich, "We need to get traction for a sustained industrial base to bring prices

down. The first movers will win the day.” He notes that, if the firm wins the Maryland project, it would invest \$190 million in port upgrades. Organizers of a major offshore-wind conference, taking place late this month in Annapolis, are arranging tours of a 3,100-acre former steelmaking complex in Baltimore that is being touted for offshore-wind logistics.

Massachusetts also hopes its New Bedford offshore-wind hub, originally developed to service Cape Wind, is also a move in that direction. It includes a wind technology technical center to test the strength of huge blades. Denmark-based local leaseholder Dong Energy and other participants have agreed to use the site for manufacture and staging, said Alicia Barton, former Clean Energy director, in a video interview last month.

General Electric supplied turbines for the Block Island project, but Deepwater Wind’s van Beek won’t say whether the firm will use GE for its larger projects. “We have a turbine RFQ out,” he says, referring to the Long Island project. In June, the U.S. manufacturer is set to close a \$1.65-billion purchase of LM Wind Power, a Danish blade manufacturer that GE says would “in-source” production for its renewable-energy business.

Acquisition also could boost the Lake Erie wind farm’s possibilities, says developer Wagner. Sale of assets for the 20.7-MW, six-turbine demonstration project to Norway’s Fred Olson Renewables will close in the next few months. Wagner touts the lake’s wind resources, expected to generate several thousand megawatts, and strong local manufacturing support. Cleveland’s municipal power utility has agreed to buy power from the \$125-million demonstration project, he adds.

Looking West, and Beyond

The West Coast offers additional potential, although its deeper water—up to 1,000 m—presents longer-term challenges and awaits still-developing technology.

Based on 2014 statistics, areas off California could generate about 392 terawatt-hours of power from offshore wind per year, about 1.5 times the total state consumption, says Joan

Barminski, BOEM regional director. The agency is collecting data on potential wind- power sites closest to the state’s load centers.

Douglas Boren, BOEM regional supervisor, says Norwegian utility Statoil is testing five turbines on floating platforms off the coast of Scotland and hopes to have its technology proven and financed by 2025. It is eyeing a California test project at a depth of 500 m or less.

Karen Douglas, the state energy commissioner, says offshore wind “was not on our radar,” but an unsolicited proposal to lease a 70,000-acre offshore Morro Bay site for a 765-MW wind project pushed BOEM to seek additional competitors.

Finding users for all the potential power will be a key future challenge, says Craig MacKay, senior vice president of engineer Tetra Tech.

Along the Atlantic coast, “power from projects will probably be bid into multiple states,” he says. MacKay also sees demand from single buyers, such as high-tech companies that want

100% renewable power and will buy all the output.

Tetra Tech's move in 2005 into offshore-wind engineering was prescient as the sector now gears up. Jennifer Daniels—director of offshore energy for the firm, which has handled environmental assessments, permitting and construction support for most U.S. offshore projects to date—says, “the next five to six years will be extremely busy.”

The Boston Globe

The Boston Globe

DERRICK Z. JACKSON

The promise of the nation's first offshore wind farm



DERRICK Z. JACKSON

The Block Island Wind Farm.



By Derrick Z. Jackson | GLOBE COLUMNIST DECEMBER 12, 2016

ABOARD THE SEVEN B's V

Paul MacDonald reached to his chest to playfully spin the blades on his lapel pin, a replica of a wind turbine. “In some parts of the country, they say ‘Drill Baby, Drill,’” MacDonald said. “Here, it’s Turn Baby Turn, Turn, Turn.”

MacDonald is a longtime lobbyist for the International Brotherhood of Electrical Workers, Local 99, in Cranston, R.I. He worked the State House hallways in Providence for years to build support for America’s first offshore wind farm, which began producing electricity to the nation’s power grid on Monday. His reward was a recent cruise out from

Narragansett with a union-sponsored camera crew making a promotional documentary on the

promise of offshore wind.

As we approached the five turbines, which are 600 feet high, MacDonald's wonder grew bigger and bigger. So did mine. As someone who toured a 111-turbine, 400 megawatt project in Danish waters three years ago, I was just as much in awe of the skyscraper height of the mere five turbines in Rhode Island.

"It's a magnificent day," MacDonald said. "The joke in the State House was whether I'd live long enough to see this."

Two years after the infamous collapse of Cape Wind and its 130-turbine project in Nantucket Sound, a much more humble US entry into offshore wind is still a towering source of optimism for joining an industry that has more than 3,300 turbines spinning in European waters.

Deepwater Wind, developer of the Block Island Wind Farm as well as some of Europe's biggest offshore companies, holds leases on the ocean that could host hundreds of turbines a dozen miles south of Martha's Vineyard. The state of Massachusetts has committed to 1,600 megawatts of offshore wind by 2027.

"I'm sure this industry could mean hundreds of jobs for our workers," said Mike Daley, business manager for IBEW 99. He said there were between 30 and 40 electrical workers on the Block Island project for about six months, with wages and benefits amounting to \$60 an hour. Deepwater Wind says that in total, more than 300 local workers were involved in the project that will supply most of Block Island's electricity.

"You could lose your mind thinking about the possibilities," Daley said. Finally, the possibilities are real. Offshore wind is about to turn baby turn.

Our View: Slowly spinning today, blades will soon reap the prosperity

Sunday

Posted Oct 16, 2016 at 2:01 AM

The winds that raised the swells around Deepwater Wind's Block Island Wind Farm on Friday pitched the fast ferry enough to hoist passengers' feet off the deck more than once. They were also sufficient to spin — through advanced aerodynamic efficiency — the blades around their hubs more than 400 feet above the ocean floor.

Deepwater Wind is still several weeks from flipping the switch on the five turbines and spinning the blades in earnest. When it happens, though, Block Island will get 90 percent of its electricity needs from the wind instead of diesel fuel. Remarkably, Block Island's usage will represent only about 10 percent of the electricity generated by the first offshore wind farm in the U.S., with the rest being sent through underwater transmission cables 16 miles to mainland Rhode Island.

The fast ferry tour was arranged for leaders of organized labor, and along for the tour were state and federal legislators, media, and sponsors Rhode Island Building Trades, BlueGreen Alliance and National Wildlife Federation.

From the deck of the fast ferry, which launched from Quonset Point in Rhode Island, it wasn't possible to see Buzzards Bay, New Bedford Harbor, or the South Terminal. But the sight of five massive towers lined up 3 miles off of the island enabled the perspective that one day not too far into the future, hundreds, even thousands, of trips to massive wind farms south of Martha's Vineyard will pass through New Bedford's hurricane barrier.

In Rhode Island, coordination and cooperation among municipalities, progressive state legislators and administrations of both parties, and leadership from Congress and the White House have created a model for the buildout of an industry that can advance national security, bring prosperity to New England (especially Massachusetts), and dramatically change the economy of SouthCoast.

There will soon be another federal lease of ocean off of Long Island, New York, and states on the East Coast from the Carolinas to Maine are paying more than mere attention to Deepwater's turbines. Massachusetts is way ahead of those other states, with 1,600

megawatts written into legislation for competitive power purchase agreements and united political support. And New Bedford is positioned at the tip of the spear, with a 30-acre heavy lift

terminal, unsurpassed seafaring experience and capacity, and the most secure harbor on the East Coast.

One of the passengers on Friday's tour, business manager for Local 37 of the International Association of Ironworkers Ron Coulombe, noted that his members worked cooperatively with Louisiana steelworkers to fabricate the structures from the ocean floor to 70 feet above the ocean, as well as platforms inside the structures ascending to the nacelles and blades. Once the Massachusetts parcels begin their development, we will witness a new scale of activity, as the New Bedford infrastructure turns to the deployment of not five towers, but hundreds. Mr. Coulombe's expectation is that fishermen and veterans will add to his union's membership to meet the need. All agree that there will be more than just union jobs available, as well.

Where it took 300 workers to build five turbines off Block Island, it will take thousands over the years to build out just the Deepwater Wind Massachusetts parcel. There are two other companies with leases there, and there are three more parcels to be auctioned.

We're still ways away from those thousands of trips through the barrier, from the hive of activity coming to New Bedford's South End, and further still from the mature industry that sees full-scale domestic manufacturing. Education, investment, resolve and cooperation, however, have come together today, and just like those blades that spun so gently in the Atlantic Ocean breezes on Friday will soon be powering Block Island and beyond, so will these tools of a modern industry.

Deepwater Wind hires Matthew Morrissey as Massachusetts VP

Former trade association leader to head Massachusetts operations for offshore wind developer



Matthew Morrissey, Deepwater Wind's new Massachusetts vice president and seated at left, talks about the state's emerging offshore wind industry in March with Matthew Beaton, the state's secretary of energy and environmental affairs. The conversation took place at the InterContinental Boston hotel, during a three-day conference on offshore wind. Courtesy of 2016 Offshore Wind Leadership Conference

By **Mike Lawrence** [Follow](#)

Posted Aug. 11, 2016 at 10:41 AM

Updated Aug 11, 2016 at 2:08 PM

NEW BEDFORD — Offshore wind power developer Deepwater Wind has hired longtime industry advocate, economic development leader and city native Matthew Morrissey to lead its Massachusetts operations, planting an organizational stake in the ground just days after Gov. Charlie Baker signed a state energy bill that could launch

turbine development off the state's coasts.

Morrissey, most recently the managing director of trade association Offshore Wind: Massachusetts, was a key player in the energy bill's passage through the State House over the past two years. With the law now on the books, Rhode Island-based Deepwater Wind is one of three competitors set to vie for required, long-term power contracts from wind turbines to be built in leased federal waters south of Martha's Vineyard.

"I am truly honored to become part of the outstanding team at Deepwater Wind, a company that has already changed the face of offshore wind in the United States by building the nation's first offshore wind project off the coast of Block Island," said Morrissey, whose title with Deepwater Wind is Massachusetts vice president. "The Massachusetts Legislature and Governor Baker did their part by signing offshore wind into law. Now it's the industry's turn to dig in and invest and compete for the opportunity to build offshore wind farms off our coast."

Deepwater Wind CEO Jeffrey Grybowski said Thursday on social media that the company has installed three of the five wind turbines planned for the 30-megawatt pilot project off Block Island. The project is expected to be operational by the end of the year. "America's offshore wind industry has finally arrived, and Massachusetts is now leading the charge," Grybowski said in a Thursday press release announcing Morrissey's hire. "Deepwater Wind is dedicated to making offshore wind an American industry. With his deep ties to Massachusetts, Matt will help us build this industry as partners with the people of the Commonwealth."

Deepwater Wind is backed by an entity of the D.E. Shaw Group, a global investment and technology development firm. Denmark-based DONG Energy — known locally as Bay State Wind — and New Jersey-based OffshoreMW also hold leases for wind turbine development south of Martha's Vineyard.

Deepwater Wind paid \$3.8 million for two lease areas totaling 164,749 acres in the Rhode Island/Massachusetts Wind Area, in the nation's first competitive auction of offshore wind development leases, conducted in July 2013 by the federal Bureau of Ocean Energy Management (BOEM).

Grybowski has said Deepwater Wind could build up to 200 turbines in the area, which spans about 256 square miles of ocean. The company is calling the potential project Deepwater ONE.

A potential staging area for turbine development could be the \$113 million, state-funded Marine Commerce Terminal in New Bedford's South End.

Roy Coulombe, business manager for the International Association of Iron Workers Local 37, called Morrissey's hire "good news for iron workers and local labor."

Morrissey is a former director of the New Bedford Economic Development Council.

"For years, Matt has been extremely influential in developing the offshore wind industry in Massachusetts," Coulombe said. "And with the Block Island project, Deepwater Wind has been the driving force to get this industry to where it is today. There are dozens of local union iron workers who are extremely grateful to be working on (that) project."

The Washington Post

Energy and Environment

Massachusetts just gave a huge boost to the offshore wind industry

By **Chelsea Harvey** August 8 



Elected officials and Deepwater Wind executives cheer during a ceremony last month to mark the installation of the first jacket support structure for a wind farm in the waters of the Atlantic Ocean off Block Island, Rhode Island. (Reuters/Brian Snyder)

Massachusetts Gov. Charlie Baker signed a new energy law on Monday that could give a

Massachusetts Gov. Charlie Baker signed a new energy law on Monday that could give a huge boost to the country's offshore wind industry. The legislation, which was overwhelmingly passed last week by the state legislature, includes the nation's biggest commitment to offshore wind energy, requiring utilities to procure a combined 1,600 megawatts of electricity from offshore

wind farms in a little over 10 years.

The legislation comes at a time when the offshore wind industry is still ramping up in the United States. Although multiple projects have been proposed up and down the East Coast, there are no working turbines in the water yet. That should soon change.

In Rhode Island, wind energy development company Deepwater Wind is preparing to enter the final stages of construction — perhaps as early as next week — on a 30- megawatt offshore wind farm. While relatively small in scale, the project would be the first of its kind to function in U.S. waters, and has been hailed as a long-awaited jump start to the nation’s offshore wind industry.

Deepwater also has interests in the state of New York, where it’s proposed a 90- megawatt, 15-turbine wind farm off the coast of Long Island. Originally, the Long Island Power Authority was scheduled to approve the project on July 20. However, it delayed the vote at the request of the New York State Energy and Research Development Authority, which asked to hold off until the release of a comprehensive master plan for the state’s offshore wind development.

Environmental groups are urging officials to move forward with the approval process as soon as possible.

In the meantime, New York’s Public Service Commission voted Monday to approve the state’s Clean Energy Standard. The plan would require 50 percent of New York’s electricity to come from renewable sources, such as wind and solar, by the year 2030. The Deepwater project, once approved, would be a critical component of achieving that goal.

In Massachusetts’ case, the mandated renewable energy doesn’t have to come from the state, itself. While several projects have been proposed in Massachusetts waters, none have launched yet. The most well-known of these is the Cape Wind project, a proposed installation of 130 turbines with a combined capacity of 468 megawatts. The project has been involved in multiple permitting struggles and other financing and legal snafus since its inception more than a decade ago.

Aside from the Cape Wind project, several other wind development companies hold leases in Massachusetts waters, including Deepwater Wind, Denmark-based DONG Energy and OffshoreMW, headquartered in Germany.

In terms of the new bill’s wind requirements, though, individual companies must solicit bids for proposals with a capacity of at least 400 megawatts each. The goal is a combined 1,600 megawatts in long-term contracts by June 2027.

The bill has been hailed by renewable energy advocates and wind developers as a major step forward for both clean energy in Massachusetts and wind development in the country as a whole.

In a recent statement, Peter Shattuck, Massachusetts director of the clean energy organization Acadia Center, hailed the legislation as a “huge step on the path to a clean energy future.” And DONG Energy’s General Manager of North America, Thomas Brostrøm, called the legislation a “landmark moment for Massachusetts’ clean energy future and a victory for the Commonwealth’s residents and businesses.”

Combined, the recent breakthroughs in U.S. wind development and investment — in Massachusetts, New York and elsewhere — may help boost the industry in a nation where it’s heretofore been slow to launch. And that’s a win not only for those states, but for clean energy in the country as a whole.

The Boston Globe

The Boston Globe

Offshore wind may finally take off with big projects, none named Cape Wind

The area off the New England coast — called the Saudia Arabia of offshore wind — is back in play.

THE MOOD WAS OPTIMISTIC at the 2016 US Offshore Wind Leadership Conference in Boston on February 29 and March 1. The event, hosted by the advocacy organization OffshoreWind: Massachusetts, brought together some 300 developers, experts, and legislators. And while Matthew Beaton, the state's secretary of energy and environmental affairs, said wind needs more study, others were less guarded. "Offshore wind is poised



SIMON DAWSON/BLOOMBERG VIA GETTY IMAGES

The London Array is the world's largest offshore wind farm. One of its developers is among those planning New England projects that, together, could produce five times as much electricity, enough to power more than 1 million homes.

By Ann Berwick | MARCH 23, 2016

to take off in the United States," US Senator Ed Markey said in his keynote address. Two days later, after meeting with developers, Massachusetts House Speaker Robert DeLeo told the

Greater Boston Chamber of Commerce that the state has “the opportunity to launch a new industry that is successful in other parts of the world, right here at home.”

But when it comes to any discussion of wind energy here, the 400-foot turbine in the room is always Cape Wind, the long-embattled project that is virtually synonymous with offshore wind in the United States, sometimes for the better, often for the worse. So let’s start — but not stop — there.

Cape Wind is the baby of Jim Gordon, who first proposed erecting 170 wind turbines in Nantucket Sound 15 years ago (the plan was later changed to 130). He has spent most of the years since then in permitting struggles and litigation. That’s because even though his chosen site is in a number of ways ideal — a shallow shoal close to some of the country’s largest electrical load — it is in other ways terrible. Nantucket Sound is a busy place for recreational boating, commercial fishing, and air and ferry traffic. Even worse, the site is 5 miles from Cape Cod and 9 miles from Martha’s Vineyard, then in view of powerful residents like the late Ted Kennedy and Walter Cronkite. Many of their wealthy neighbors, including billionaire Bill Koch, helped fund the Alliance to Protect Nantucket Sound to stop the project.

Over the years, Cape Wind has defended against more than 20 lawsuits (it won almost all of them, with several still pending). It was also criticized because it would produce electricity that is more expensive than power generated by fossil fuels, though the sides marshaled competing claims on the actual costs to customers. The Alliance to Protect Nantucket Sound said that, based on Cape Wind’s contract with NStar, it would amount to a \$3 billion rate hike to Massachusetts over the life of the project; Cape Wind said its analysis in fact showed \$7 billion in savings to the New England wholesale electrical market over those 25 years. (The Massachusetts Department of Public Utilities, which I chaired at the time of approval of the contracts, found that the National Grid contract would have increased the bills of residential customers by about 1.5 percent.)

However, progress on Cape Wind stalled more than a year ago, when Gordon missed an important financing deadline and National Grid and NStar (now Eversource) walked away from their contracts to buy three-fourths of the project’s power. Gordon is still fighting for Cape Wind — he says he “eagerly anticipates” competing with other offshore wind companies — but the outlook remains uncertain at best.

In light of Cape Wind’s contentious history, it might seem ridiculous to suggest that Massachusetts could be on the verge of finally building an offshore wind industry — or that it would want to. But the industry has come a long way, and now is the time to get behind it.

IN RECENT YEARS, GENERATING electricity using offshore wind has become wildly successful in Europe. At the end of 2015, it had 3,230 offshore wind turbines in a total of 84 farms, providing enough electricity to power more than 7 million homes.

This experience (and improvements in technology) is also bringing down costs. By the mid-2020s, experts forecast that prices in Europe for electricity generated by offshore wind will be about 40 percent less than the starting price proposed by Cape Wind. By then, international energy giant Danish Oil and Natural Gas wants its wind farms’ electricity prices to be

competitive with natural gas.

Meanwhile, federal law in the United States has become more hospitable, too. In 2009, the Bureau of Ocean Energy Management issued regulations that, in part, govern planning, site assessment, and leasing of offshore wind areas. The bureau has now leased hundreds of thousands of acres off Massachusetts and Rhode Island — an area of persistent gusts that has been called the Saudi Arabia of offshore wind — to commercial developers. The wind turbines closest to shore would still be about 15 miles away, three times farther out than Cape Wind, making them barely visible in good weather and removed from heavy commercial activity.

Rhode Island's Deepwater Wind won an auction to lease 165,000 acres in 2013, with an eye on constructing as many as 200 turbines. The company says those could produce up to 1,200 megawatts of electricity, enough to power roughly 350,000 homes. Deepwater Wind is already building the nation's first offshore wind farm, a five-turbine pilot facility off Block Island, scheduled to start generating electricity at the end of the year.

Two other leases are now held by companies looking to build on more than 350,000 acres off Massachusetts. Those projects could generate more than 2,000 megawatts of clean energy, enough to power some 700,000 homes. (The Pilgrim nuclear power plant in Plymouth has only a third of that capacity — just 680 megawatts.) Together, says Bureau of Ocean Energy Management director Abigail Ross Hopper, they put Massachusetts “at the forefront of offshore wind development in the US.”

One of the companies, New Jersey-based OffshoreMW, has an experienced backer in private equity titan Blackstone Group, which funded a major wind farm in the North Sea and is planning several more projects. OffshoreMW says it's committed to building here, but is waiting to announce specific plans until the Massachusetts Legislature weighs in on offshore wind, expected to happen this spring.

The other company, Danish Oil and Natural Gas, has an even more impressive track record, having built 14 offshore wind farms in Europe, including the world's largest: the 175-turbine London Array. Its project planned for the waters off Massachusetts would be its first in North America. Bay State Wind, as it's called, could include up to 100 turbines generating as much as 1,000 megawatts of electricity, more than double Cape Wind's proposal.

Offshore wind developers are certainly set on Massachusetts. And there are many reasons why it's time to capitalize on their renewed interest.

OVER TIME, THIS REGION has become worryingly dependent on natural gas. In 2000,

New England used natural gas for 15 percent of its electricity generation. It's now 49 percent — and rising. Though low at the moment, natural gas prices historically have been extremely volatile, and overdependence on one fuel is risky from a both a price and reliability perspective.

In addition, the Pilgrim nuclear plant is scheduled to close within the next few years. When it does, the state will lose more than 80 percent of its carbon-free electricity. State law requires Massachusetts to reduce its use of fossil fuels by significant amounts by 2020, and even more thereafter, and it will need all of its renewable resources to comply. Offshore wind is one of the

region's largest potential sources of clean energy, together with solar and hydroelectric power.

And because Massachusetts doesn't have coal, oil, or natural gas — the fossil fuels that generate most of our electricity — the state sends the greater part of its annual energy dollars (\$21 billion in 2013) elsewhere. The companies looking to do business here argue that offshore wind will help change that by creating local jobs — building and maintaining wind farms, of course, but also manufacturing, transportation, and a range of support services. The European industry, albeit much larger than the burgeoning New England one, had provided 75,000 jobs by 2014, according to the European Wind Energy Association.

Massachusetts is missing just a single piece of policy to truly launch offshore wind: a state law that would require electric utilities to buy a specified amount of power from wind farms, even if it comes at a premium. Because new types of generation usually cost more than conventional resources, this kind of measure is necessary until experience and economies of scale have a chance to bring the price down. And, of course, the price does not fully reflect that health and environmental costs that come with conventional resources.

An omnibus Massachusetts energy bill expected to soon come up for debate in the state Legislature might include such a provision and probably will also address hydroelectricity, wind, and natural gas. Among the measures being considered is a requirement that Massachusetts purchase 2,000 megawatts of offshore generating capacity over ten years. That's enough to jump-start a new industry, Ocean Energy Management's Hopper says, not just a one-off project.

It's at that scale that cost savings can kick in. A new study by the University of Delaware determined that a 2,000-megawatt commitment by Massachusetts, together with advances in technology, could lower costs over the next decade and a half by as much as 55 percent. "The key is making a firm commitment to scale, so the market can do its work," reported lead author Willett Kempton. "By providing market visibility — the state's commitment to a pipeline of projects over a set period — the offshore wind industry in the US can deliver energy costs on the kind of downward trajectory seen in Europe."

There are too many potential benefits to offshore wind to ignore. It can create an entire industry and the jobs that go with it. It can replace the clean energy from Pilgrim many

times over. It can decrease dependence on natural gas and other fossil fuels. Its cost is coming down. So even though the conversation about offshore wind in Massachusetts started with Cape Wind, it shouldn't end there.

Ann Berwick, a former state energy official, is a consultant and writer on energy and climate issues. Send comments to magazine@globe.com.

Associated

Offshore wind projects in United States see renewed interest

PHILIP MARCELO

Associated Press

3 March 2016 12:26

[Press](#)

BOSTON (AP) — The offshore wind industry has high hopes for establishing a permanent beachhead in the U.S. after years of disappointment.

Business leaders and politicians who gathered for an industry conference in Boston this week said wealthy investment firms and seasoned European offshore wind companies are increasingly committing to projects along the East Coast. That, they said, is evidence a domestic industry dreamed about for nearly two decades is finally on its way.

"There's a palpable sense that it's finally happening," said Bryan Martin, a managing director at D.E. Shaw & Co. That New York hedge fund is the principal backer of **Deepwater Wind**, a Rhode Island-based company looking to launch the country's first offshore wind farm off Block Island by the end of the year. "The U.S. tends to start small and ramp up very fast. I believe that will happen with offshore wind."

Among the significant new players to emerge in the past year is DONG Energy, a Danish firm that operates more than a dozen wind farms, including some of Europe's largest.

The government-owned company has leased roughly 187,000 acres of federal waters about 15 miles south of Martha's Vineyard in Massachusetts and recently announced intentions to seek a second federal lease in waters off New Jersey.

"Massachusetts has some of the best offshore wind conditions in the world, and the peak wind speeds match the peak demand times for energy, so that is why we see so much potential," says Lauren Burm, a Boston-based spokeswoman.

OffshoreMW, which is owned by the private equity giant the Blackstone Group and has ties to a company that recently completed a wind farm in Germany's North Sea, has also joined the fray in Massachusetts, securing federal development rights to an area near DONG's lease. So, too, has **Deepwater Wind**.

Elsewhere, Renexia, an Italian company specializing in renewable energy projects, is backing a project about 15 miles off Ocean City, Maryland.

The new players are helping the industry move past the stumbles of Cape Wind, the once-

[high-profile](#) project proposed for the waters off Cape Cod, Massachusetts, that never quite got off the ground. The project has been bogged down for years in a bitter and costly legal fight with wealthy property owners, including billionaire William Koch.

"To have steel in the water and to be talking about an existing domestic offshore wind industry is really critical," says Nancy Sopko of the American Wind Energy Association, referring to **Deepwater Wind's** Rhode Island project. "We're talking about an industry that is here, not one that is coming."

Matthew Morrissey, head of Offshore Wind Massachusetts, an industry advocacy group, says the expected closure of a number of coal and nuclear-powered energy plants in New England in the coming years also presents an opportunity for the industry. The region faces a major energy-production drop-off, and Morrissey says his industry is positioned to help fill that void.

But Audra Parker, head of the Alliance to Protect Nantucket Sound, the opposition group fighting the Cape Wind project, says it remains to be seen how much power will cost from these offshore wind projects. Offshore wind power, she noted, is more costly to produce than natural gas or other forms of renewable energy like solar power or land-based wind turbines.

Martin, of D.E. Shaw & Co., says technological advances already in place in Europe — like larger, more powerful turbines — will help bring the cost of offshore wind power down, though he and other developers have so far declined to say by how much, citing the competitive nature of the business.

The Patriot Ledger

Tuesday

Posted Jan 3, 2017 at 8:55 PM

Updated Jan 3, 2017 at 8:57 PM

[The Patriot Ledger](#)

OUR OPINION: A clear vision for alternative energy

When Deepwater Wind's Block Island Wind Farm flipped the switch on its five turbines last month, Block Island received 90 percent of its electricity needs from the wind instead of diesel fuel.

Remarkably, Block Island's usage represents only about 10 percent of the electricity generated by the first offshore wind farm in the United States, with the rest being sent through underwater transmission cables 16 miles to mainland Rhode Island.

The sight of five massive towers lined up three miles off the island suggests that one day, not too far into the future, hundreds, even thousands, of trips to massive wind farms south of Martha's Vineyard will originate from the Islands, Falmouth and Hyannis.

In Rhode Island, coordination and cooperation among municipalities, progressive state legislators and administrations of both parties, and leadership from Congress and the White House, have created a model for the buildout of an industry that can advance national security, bring prosperity to New England (especially Massachusetts), and dramatically change our economy.

The ironworkers union worked cooperatively with Louisiana steelworkers to fabricate the structures from the ocean floor to 70 feet above the ocean, as well as platforms inside the structures ascending to the nacelles and blades. Once the Massachusetts parcels begin their development, we will witness a new scale of activity, as the infrastructure turns to the deployment of not five towers, but hundreds. And there will be more than just union jobs available.

Where it took 300 workers to build five turbines off Block Island, it will take thousands over the years to build out just the Deepwater Wind Massachusetts parcel. There are two other companies with leases south of Martha's Vineyard, and there are three more parcels to be auctioned.

There will soon be another federal lease off Long Island, and states on the East Coast from the Carolinas to Maine are paying more than mere attention to Deepwater's turbines

off Block Island. Massachusetts is way ahead of those other states, with 1,600 megawatts written into legislation for competitive power purchase agreements and united political support.

The milestone reached between the three developers and the commonwealth's Clean Energy Center demonstrates that the benefits of the landmark legislation that underpinned the commonwealth's energy bill - the Global Warming Solutions Act of 2008 - are accelerating. As noted by the wind companies in a press release from the state, Massachusetts jobs have been created already; innovation is driving down the cost of energy generation, and, therefore, the cost to consumers; and electricity will be generated soon by offshore wind.

Moreover, private green investment expands exponentially at the expense of fossil fuel industries, and innovations yet undiscovered might still yield methods for removing the excess carbon from the atmosphere, and bring it below the threshold levels now responsible for this unfamiliar climate.

The work is nowhere near done, but we can praise the vision and persistence that brought us to this point.



15 December 2017

Block Island sees benefits of offshore wind farm 1 year out

NEW SHOREHAM, R.I. (AP) — Block Island residents say a year-old offshore wind farm has positively impacted tourism, but residents also have their concerns and reservations.

The Block Island Tourism Council says the island has seen increased tourism for people coming to see the wind farm. Rhode Island Public Radio reports that the farm has been a boon for mainland Rhode Island residents — providing nearly 2,000 people with money-saving power.

However, after the wind farm's developer, Deepwater Wind, provided the island with a fiber optic cable for high-speed internet, residents say they still don't have reliable service.

Resident Chris Willi says it could cost \$6 million to \$8 million to get high-speed internet service to all Block Island residents.



1 year later, US looks to replicate Block Island Offshore Wind's success

Ellen Meyers

12 December 2017

One year after the Block Island Offshore Wind project, the first offshore wind farm in U.S. waters, went into full commercial operation, the budding industry has high hopes for replicating that success in other states.

On Dec. 12, 2016, Deepwater Wind's \$300 million, 30-MW project began producing electricity for residents on Block Island and mainland Rhode Island, and [Block Island Power Company Inc.](#) shut down its diesel generators. Since Block Island Offshore Wind became fully operational, the company has not run their diesel generators other than a brief weekly test run, Block Island Power Company CEO Jeffery Wright said in an interview.

"There has been nothing but good things to report," he said. "Power quality is better than it has ever been. The cost is stable and less than it has ever been, and all in all, I think everyone is happy."

Block Island residents, whose electricity bills had historically fluctuated widely on a month-to-month basis, are spending less on energy bills; Wright said the average customer using 500kWh of electricity has seen their monthly bill go down from about \$140 to \$120. And those prices should be stable going forward.

"There are things we can do now we're connected to the wholesale energy markets that we were never able to do before, like getting long-term contracts that are reasonable-priced for our customers," said Wright. "We are not subjected to the monthly up and downs of the fuels market."

Birth of a market

Block Island has also changed the game for the nascent domestic industry. East Coast states, including Massachusetts, New York and Maryland, have created renewable portfolio standards that include an offshore wind procurement target and encourage developers such as [Statoil ASA](#), [Ørsted A/S](#) and [Avangrid Renewables LLC](#) to tap into the domestic, 24,000-MW project pipeline. Exploration is also occurring on the West Coast; the [California Energy](#)

[Commission](#) will vote on a memorandum of understanding with Scotland to share offshore wind expertise on Dec. 13.

Developers and energy companies are expected to spend more than \$27 billion on building 5.9 GW of offshore wind projects that are scheduled to come online by 2027, according to S&P Global Market Intelligence data. The [U.S. Department of Energy](#) officially announced on Dec. 12 that it would fund a \$20.5 million offshore wind research and development initiative to address industry technology issues.

With just one offshore wind in operation, though, renewable energy companies, utilities and state and federal agencies have to create larger, more cost-efficient projects and address several issues that could hold back the fledgling industry, such as building up a domestic supply chain and bringing down the cost of energy from offshore generation. The success of Block Island contrasts with the fate of Cape Wind, which finally this month decided to close the books on its 16-year battle to complete the controversial Nantucket Sound Offshore Wind Farm (Cape Wind) project.

Driven by developers

Cape Wind failed because it was completely developer-driven, Deepwater Wind CEO Jeffrey Grybowski said at the Southern New England Offshore Wind Science Forum on Dec. 11. Cape Wind faced backlash from residents, businesses, environmental groups and Native American groups over the developers' lack of community engagement. At one point, Grybowski said, Deepwater Wind considered building the Block Island project at a larger scale with 100 turbines, but the company realized that the windfarm had to fit what the community would accept. The final project has five turbines.

"That process of interaction with state and stakeholders was really important to get to a project size that could be successful," Grybowski said.

But now, the domestic industry must tackle larger projects in order to grow. Just as Block Island Offshore Wind came online, [Statoil](#) won a lease for development in federal waters for more than \$42 million. Now, the state and the [Bureau of Ocean Energy Management](#) are working on a plan to accommodate at least four more offshore wind leases in the region. Neighboring Block Island, [Eversource Energy](#), [Unitil Corp.](#) and [National Grid USA](#) are waiting for bids to fulfill a request for proposals in Massachusetts for 800 MW of offshore wind generation, due Dec. 20.

Brian Gemmill, vice president of transmission strategy and performance at National Grid, said he is interested in seeing what bids the request for proposals will get in the coming weeks, given that the projects will be much larger than Block Island's 30-MW wind farm.

"That will really be a catalyst for the offshore wind industry more so than the Block Island project," he said in an interview. "The size is really going to allow the industry to kick off."



Rhode Island Public Radio

Block Island Residents Discuss Impacts Of Offshore Wind Farm 1-Year Anniversary

By AVORY BROOKINS • 4 HOURS AGO



Chris and Jessica Willi, Block Island residents, talk about how the island's offshore wind farm has impacted tourism, electric bills and high-speed internet access at a forum Tuesday at the University of Rhode Island's Graduate School of Oceanography.

AVORY BROOKINS / RIPR

The nation's first offshore wind farm about four miles off the coast of Block Island celebrated its one-year anniversary Tuesday. The wind farm supplies power to nearly 2,000 customers on the island and is saving those ratepayers money. Residents say the wind turbines have positively impacted tourism, but there are some disappointments too.

Tourism

Opponents of wind energy projects sometimes worry about how wind turbines will affect the ocean's view. They argue the turbines could make a trip to the water less appealing to people.

However, that hasn't been the case for Block Island, according to the Block Island Tourism Council.

"We've definitely seen more people on the Island that have come just to see the wind farm, we've had businesses sprout up on the island, boats taking people out just to see the wind farm," Jessica Willi, executive director of the Block Island Tourism Council, said.

The recreational fishing industry has also benefited from the wind farm, according to Chris Willi, Jessica's husband and charter boat captain at Block Island Fishworks & Sandy Point Fly Leaders.

"You can't always rely on mother nature (for the success of your business)," Chris said. "As we all know, sometimes the fishing stinks, and now you can just say, 'All right, let's go look at this engineering marvel three miles from the island.'"

However, Jessica said although tourism has gone up, offshore wind energy companies should consider tourism more often and earlier in their development process.

Electric Bills

After the wind farm started powering homes in May, the average customer who used 500 kilowatt hours a month saved \$20 on their electric bill, according to the utility company Block Island Power. However, some residents say there's a downside to the new energy rates too.

During construction of the wind farm, it was connected to the mainland's electrical grid. National Grid, the mainland's grid operator, needed a substation on Block Island for the cables from the wind farm and mainland to connect to.

Chris Willi, who's lived on Block Island since 1992, said he believes National Grid was not transparent about the process of determining the cost for their substation.

"The initial proposal for the substation costs were somewhere around \$330,000, final price tag is 2.5 million. That's going to be borne by the ratepayers," Willi said.

Block Island Power said residents are paying five extra cents per kilowatt hour because of the increased final cost of the substation. However, the company said after six years, residents should see their electric bills go down by 20 percent.

High-Speed Internet

Deepwater Wind, developers of the offshore wind farm, provided the island with access to a fiber optic cable so residents could have high-speed internet for the first time ever. However, residents still don't have that reliable internet service.

"Our school is suffocating with the lack of broadband access, our police station, our medical center," Chris Willi said. "Now, (the fiber optic cable is) sitting there because we didn't have a plan to do something with it once it got there, and we're in the process of doing that...but we could have started that process when we knew it was coming over four, five years ago."

Willi said it could cost \$6-8 million to get high-speed internet service to all Block Island residents.

It could take a couple more years before everyone on the island has broadband access, according to Block Island Power.



A YEAR OF WIND ENERGY; WIND FARM: YEAR IN REVIEW

Cynthia Drummond Sun staff writer

12 December 2017

NARRAGANSETT - A year after the Block Island wind farm's five turbines began producing power, 170 scientists, federal and state officials, fishermen and others from Maine to Virginia gathered on Monday to talk about the project.

Sponsored by project developer Deep Water Wind and Rhode Island Sea Grant, the two-day conference at the University of Rhode Island's Graduate School of Oceanography provided an opportunity for participants to share current research findings and discuss future wind energy projects.

The idea of having a conference originated with Grover Fugate, Executive Director of the Rhode Island Coastal Resources Man-

See Wind, A5 From A1

agement Council. The CRMC has been involved with the wind farm since 2007, when the Ocean Special Area Management Plan, or SAMP, was created. Fugate and others have attributed the successful completion of the wind farm to the SAMP collaborative process.

"Trying to spend the time up front and meet with the prospective users that are out there that have concerns, look at the resources and the rest of it, to the extent that you can incorporate that up front in the process saves you a tremendous amount of time on the back side," he said.

The federal government is now considering proposals for wind energy projects along the entire East Coast. James Bennet of the Bureau of Ocean Energy Management provided an overview of wind power's key role in the federal government's renewable energy strategy for the coming years.

"We believe that the outer continental shelf can provide a very significant contribution to the administration's energy strategy," he said.

"That includes revenue, that includes jobs, that includes energy diversity. We know that in the Northeast, we have the trifecta for wind energy projects. We have a great wind energy source, we have a buildable environment of a shallow, sloping shelf that fits with the currently available technology and we have world class markets for energy consumption." Rhode Island Energy Resources Commissioner Carol Grant said when it became apparent that the Block Island wind

farm was going to be built, the project began to attract global attention.

"People from all over the globe started descending on Rhode Island," she said. "It's great to have them here in our hotels, talking to each other, but also asking the question that has been asked here: what advice do we have?"

Jeffrey Grybowski, Deep Water Wind's Chief Executive Officer, said it was important for the country's first offshore wind farm to remain small.

"When you're doing something for the first time, going for the large size isn't necessarily the right way to go," he said. "Even though it may make financial sense, and from an engineering perspective, building 400 megawatts of offshore wind is very achievable, something that's done, literally, every day now, but starting small makes a lot of sense when you step back and you look at the long term, because offshore wind does have impacts and it's important to proceed in a way that allows you to measure those impacts and understand them before you get to the point where your impact is so large that you've done lasting damage to your cause."

Save the Bay South County Coastkeeper David Prescott moderated a panel discussion by stakeholders, which included The Nature Conservancy, the National Wildlife Federation and Chris Brown, President of the Rhode Island Commercial Fishermen's Association. Brown said fishermen were threatened at first by the idea of a wind farm, but over time, came to trust the SAMP process. "We realized that our greatest defense was to become willing to participate in the process and have our opinions valued and respected," he said. "...If there are any other developers in the room, I would like you to note how really important it is for you to take the threat to commercial fishing off the table at the very onset of the conversation."

Brown also warned scientists not to discount fishermen's anecdotal observations.

"I have been fishing for 40 years, have 8,000 days at sea and could tell you things about the ocean that would curl your hair and have you sitting on the edge of your seat, but yet I have no value scientifically because everything I say is anecdotal," he said. "I need to find a way to translate what I see, what I know, what I feel, what I believe, into data that is usable by the system. We wish desperately to be a fishery that is guided by science and preserved by the concept of conservation."

Despite the extensive research and monitoring that has been a key component of the siting and building of the wind farm, scientists still lack data in many areas such as the effects of loud construction processes like pile-driving on marine mammals and fish. Monitors were on hand at all times to check for the presence of whales near the construction area, a protection required by federal law, but little is known about how whales, including the endangered North Atlantic right whale, are affected by the noise.

Two URI professors who study fish said they believe that fish are also affected by construction noise as well as the electromagnetic field generated by the transmission cable, but there is no data to say what those effects might be.

Scott Kraus, the Chief Scientist at the New England Aquarium who performed aerial whale population surveys over proposed Massachusetts and Rhode Island wind energy areas, said it

would be important to determine how whales are affected before wind farms proliferate along the coast.

"There is no controlled understanding of what happens to marine mammal distribution and abundance and how they interact with wind farms, other than harbor porpoise and harbor seals," he said.

"That's what the Europeans had to deal with. We have to deal with large whales, a lot of endangered species, sea turtles - the Europeans didn't have any of that."

cdrummond@thewesterlysun.com @cdrummon4 A pleasure boat cruises past a Deepwater Wind platform off of Southeast Light on BI. Harold Hanka, The Westerly Sun

Deepwater Wind turbine blades rise over homes on Block Island in this file photo from Aug. 18, when the final turbine blade had been lifted into place for the five-turbine wind farm. The farm, about 3 nautical miles southeast of Block Island, is the nation's first offshore wind farm and started producing electricity last December. Power is transmitted from the turbines to the electric grid along a 21 mile power cable buried under Block Island Sound, making landfall north of Scarborough Beach in Narragansett. The system also connects the island to the grid, doing away with the need for diesel generators. Harold Hanka, The Westerly Sun A tourist photographs a Deepwater Wind platform from the grounds of Southeast Light on Block Island.

THE WALL STREET JOURNAL.

The Wall Street Journal

BUSINESS

Energy Suppliers Find Fresh Lift From Offshore Wind

Oil-and-gas service companies plan to use existing know-how to build out offshore-wind projects



The 30-megawatt Block Island wind farm in Rhode Island cost \$300 million to complete. PHOTO: ERIC THAYER/BLOOMBERG

By Erin Ailworth

Aug. 5, 2017 7:00 a.m. ET

For more than three decades, Gulf Island Fabrication Inc. has built foundations to anchor offshore-oil platforms to the ocean floor. Now, as lower oil prices take a bite out of that business, it is trying to turn that expertise into an edge in a new business: offshore wind. The Houston-

based company—which recently built the foundations for the first U.S. offshore wind farm, near Rhode Island—is one of many oil-and-gas industry suppliers seeking to diversify into offshore wind, as 18 wind projects are proposed for the nation’s waters. Surveyors who take samples from the sea floor to find safe places for oil and natural-gas platforms are doing the same for future wind farms. Companies that furnish vessels to transport equipment and supplies to offshore drilling sites are retrofitting them to carry wind blades and other parts.

For energy-services companies, finding new revenue streams is crucial as oil and gas from onshore shale formations continue to flood the market. Over the past three years, the number of rigs drilling for oil and gas in the U.S. Gulf of Mexico has dropped by roughly 75%, to 16 rigs on Friday from 63 in late August 2014.

The 30-megawatt Block Island wind farm in Rhode Island cost \$300 million to complete. Many of the other projects proposed in the U.S. are considerably larger and would require hundreds of millions to billions in investment.

The know-how needed to build offshore-wind farms is similar enough to putting up a drilling platform that conference organizer PennWell Corp. is bringing companies from the two industries together in Houston for a two-day confab starting Wednesday.

“We are one of the largest offshore foundation companies,” said Roy Francis, a senior vice president of business development at Gulf Island, which employs 1,000 people. “If you look at this [wind] industry, they are calling for hundreds of foundations in the territorial waters of the U.S.”

The development of a domestic supplier network is crucial to the build-out of offshore wind projects in the U.S., which are more expensive than similar projects in Europe, partly because they currently have to import crucial parts, such as turbine towers, from the other side of the Atlantic.

Offshore wind farms take years to complete, and all currently proposed in the U.S. are in the permitting and planning phases. Bay State Wind, a wind farm that developer Dong Energy A/S and New England utility Eversource Energy Co. are trying to build off the Massachusetts island of Martha’s Vineyard, received federal approval in late June to deploy equipment to measure wave and wind speeds, for example, as it aims to deliver power in the early 2020s.

It is unlikely all 18 proposed wind farms will be built. Still, suppliers to the offshore oil-and-gas industry—suffering from diminished business because of a prolonged period of lower oil and gas prices—are “all looking for new business,” said Randall Luthi, president of the National Ocean Industries Association, a trade group.



A view of the Deepwater Wind offshore-wind farm under construction off the coast of Block Island in 2015. PHOTO: SHIHO FUKADA/BLOOMBERG

The launch of the Block Island wind farm off Rhode Island last December, which involved several companies with long histories in oil and gas, has heightened interest.

Keystone Engineering Inc., a Louisiana-based company, designed the farm's foundations. Montco Offshore Inc., also of Louisiana, provided vessels and crews to help install those foundations and transport turbine parts to the site. "My Gulf of Mexico crew loved the idea of leaving the oil patch to go do something different," said Joseph Orgeron, chief technology officer at Montco.

Chris van Beek, president of Deepwater Wind, the developer of the Block Island wind farm, worked in the offshore oil-and-gas industry for 30 years. He said he welcomes the skills its suppliers bring, adding that Deepwater Wind's team has four or five people with offshore oil and gas backgrounds. "They love the business," he said.

The New York Times

The New York Times

Monday, May 22, 2017

THE DAILY 360



Chang W. Lee/The New York Times.
Technology by Samsung.

An 'Awesome' View at America's First Offshore Wind Farm

THE DAILY 360

By CHANG W. LEE, LOGAN JAFFE and JOSHUA THOMAS





12 Lessons From The 100 Most Creative People Of 2017

These innovative leaders are changing the world through their work in tech, fashion, food, entertainment, and more.

Fast Company

As a journalist, maintaining a healthy level of skepticism is a requirement. Sources routinely put their own actions in the best possible light, while undercutting the activities of rivals. I just can't take everything people say to me at face value.

But every now and then, I get to engage in a project that is so inspiring, my wall of cynicism melts. That's the way I feel about our annual coverage of the Most Creative People in Business. Each year, our editorial team scours the globe to identify 100 all-new honorees whom we have not significantly covered in print before. This is how we initially introduced readers to Instagram founder Kevin Systrom—before his business was acquired by Facebook. It's where we first talked about Princess Reema Bint Bandar Al-Saud of Saudi Arabia, Amazon Studios chief Roy Price, and Warby Parker cofounder Neil Blumenthal. And where we made the business case for Lin-Manuel Miranda's amazing accomplishments with *Hamilton*.

This year's pool of honorees is every bit as extraordinary.

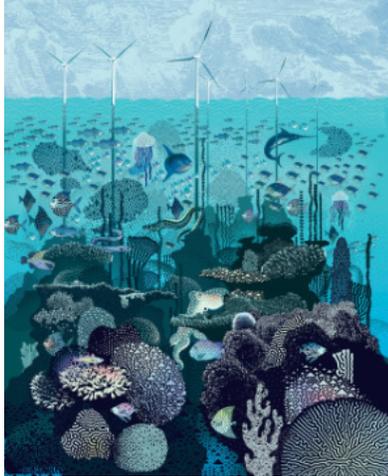
I dare you not to be stirred (and maybe a little intimidated) by all that this group is making happen. What our Most Creative People coverage reveals each year is just how broad and rich an impact business can have, regardless of any external economic and political conditions. There are always amazing things going on, if you pick your head up to notice them.

What follows is my list of creativity lessons for 2017, drawn from our honorees' achievements. The tangible outcomes defy expectations and limitations. You can't make this stuff up.

9. POWER IS SHIFTING

Ganesh Bell (No. 11) is using GE's Predix data-analysis software to improve the efficiency of utilities—from nuclear to natural gas—and businesses, helping GE Digital generate \$3.6 billion in

revenue. Jeffrey Grybowski's (No. 99) Deepwater Wind is pulling clean energy from offshore farms in the northeast Atlantic Ocean.



34/35 No. 99: **Jeffrey Grybowski**, CEO of Deepwater Wind, is throwing power to the wind. [Illustration: Phil Wheeler]



MOST CREATIVE PEOPLE 2017

Jeffrey Grybowski

CEO, Deepwater Wind

For throwing power to the wind

The country's first offshore wind farm, located a few miles from the coast of Rhode Island, started providing electricity to parts of the state last December thanks to clean-energy developer Deepwater Wind. The fleet of five 600-foot-tall, 200-ton GE wind turbines, bolted to the seabed of the Atlantic Ocean, represents a collaborative effort by a team of marine biologists, electrical engineers, and turbine designers. "I help them figure out how we can take [their] technology and apply it to projects that can be built in real life," CEO Jeffrey Grybowski says. Grybowski was a corporate lawyer with little experience in energy when he joined Deepwater in 2010, but his background in parsing complicated policy issues proved training enough: He spent more than six years chasing down approvals for 26 different permits before he could install a single turbine. The wind farm currently powers 17,000 homes, while Grybowski is working with legislators in New York and Maryland to build additional farms along the eastern seaboard.

How to Tap Into Your Inner Genius P.142

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MARCH 15, 2017

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CLEAN ENERGY SPECIAL REPORT
DEEPWATER WIND



ON THE WATER

THE FIRST OFFSHORE U.S. WIND-POWER PROJECT IS UP AND RUNNING. BACKED BY THE DEEP POCKETS OF HEDGE FUND GIANT D.E. SHAW, THE OBSTACLES TO A WAVE OF OFFSHORE POWER ARE HUGE—BUT SO IS THE POTENTIAL.

BY BRIAN DUMAINE

Deepwater Wind's project near Block Island, R.I.

185

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DEEPWATER WIND



IT WAS A BRISK SUNDAY MORNING in October 2015, and Deepwater Wind CEO Jeffrey Grybowski's cell phone buzzed. His construction manager, who was driving piles 200 feet beneath the floor of the Atlantic Ocean, three miles from Block Island, R.I., said he had to halt work on the company's wind farm because a humpback whale had meandered near the site. Under the Endangered Species Act, it's illegal for humans to "harass" certain marine mammals, and loudly pounding steel into the ocean floor would certainly qualify.

Worse, from Grybowski's perspective, the law permits driving in piles only during certain months, when the whales aren't migrating to the area. Bad weather was moving in, and if his team didn't finish the project that day, Grybowski would have to wait another six months before the feds would allow him to sink in the final post for the five giant wind turbines that would provide the island's power. That meant millions in losses and a disaster for his small company. Recalls Grybowski: "It was a nail-biting moment. We had no way of knowing when the whale would stop hanging out."

Over the next few hours Grybowski hounded his foreman for information. How far away was the whale? Was it moving at all? Was it drifting closer to the construction site? By midafternoon, he had only a few hours left to finish before time ran out. Grybowski's cell rang again, and he learned that with a magnificent flip of its flukes the humpback had swum away. The crew then sank the last piling, just making the deadline.

No one ever said it would be easy to build the first offshore wind farm in America. But in December, Deepwater Wind's Block Island turbines started spinning out electricity. What the company accomplished is much more than replacing the island's dirty, diesel-power plant with clean wind. The project marked the beginning of what many experts and investors are betting is a boom in offshore wind along the northeast coast of the U.S. After decades of false starts, bankrupt projects, and protests—Ted Kennedy once complained that a proposed wind farm would ruin the view from his Hyannis Port compound—offshore wind is looking practical.

Europe has been building offshore wind since the early 1990s, but American developers couldn't figure out how to make those farms compete with cheap coal and natural gas. In the past few years, however, the turbines have gotten larger and more efficient, and the installation costs have dropped. As a result, the wholesale cost of European offshore wind power has fallen from an average of 20¢ a kilowatt-hour (kwh) to less than 10¢. And the cost curve keeps sloping downward.

At the same time, state governments are generating favorable winds. Last summer, Massachusetts Gov. Charlie Baker, a Republican, signed a law that requires that state to procure 1.6 GW of offshore wind by 2027. Not to be outdone, New York's Democratic governor, Andrew Cuomo, committed to develop 2.4 GW of offshore wind as part of his pledge to get 50% of the state's power from renewables by 2030 (roughly twice the current percentage). As Cuomo tells *Fortune*: "New York will continue to advance the largest offshore wind development in the

For the first time, U.S. investors see a path to profitability. The gold rush has begun. In the U.S., 23 offshore wind projects totaling 16 gigawatts (GW), the equivalent of about 16 nuclear power plants, are on the drawing board. Almost all are located along the northeast coast. Over the past year, Denmark's oil and gas giant Dong Energy bought federal leases off the coasts of Massachusetts and New Jersey. Norway's Statoil won a 33-round auction to secure a 79,000-acre site south of Jones Beach on Long Island for \$42.5 million, far more than the \$16 million generated by all earlier offshore wind auctions combined. Shell has been sniffing around. Wall Street players such as Citigroup, HSBC, and, as we'll see, D.E. Shaw are lining up to finance the most promising projects.

○ Deepwater CEO Jeffrey Grybowski in Providence in front of bases for wind turbines.

OFFSHORE WIND COULD SOMEDAY PRODUCE TWICE AS MUCH POWER AS AMERICA CONSUMES TODAY, SAYS THE ENERGY DEPARTMENT.



In addition, the permitting process is complicated and time consuming, and a new administration in Washington has made it clear that coal—and not renewable energy—will be its priority.

Industry backers argue that offshore wind will follow the same steep cost decline of other technologies. The price of land-based wind (without any subsidies) plummeted from 14¢ to 4.7¢ a kilowatt-hour from 2009 to 2016, according to financial advisory and asset management firm Lazard. That's cheaper than the energy from a new natural-gas or coal plant.

Now we're seeing the start of a similar downward trajectory for offshore wind. The DOE estimates that the price of offshore wind will drop by 43% by 2030, which would make it nearly competitive with other new sources of electricity. Irene Rummelhoff, who runs Statoil's offshore wind and other "new energy" businesses, is more optimistic: "Two years ago they said European wind wouldn't be competitive until 2030. We became competitive last November. In the U.S. it can happen extremely quickly too."

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nation that will bring resilient and reliable power, create jobs, and combat climate change.”

All told, the U.S. Department of Energy projects that offshore wind will produce 86 GW of power by 2050—about 7% of America’s current electricity demand. That’s up from virtually zero today. (Land-based wind now delivers 82 GW in the U.S., vs. just 4 GW 15 years ago.)

If offshore wind can follow such a trajectory, that would make it a multibillion-dollar industry and create as many as 600,000 jobs during the next few decades. Offshore wind has the long-term potential to produce twice as much electricity as America currently consumes, according to the National Renewable Labs, part of the DOE. It conservatively estimated offshore wind capacity in the U.S. by taking into account only areas likely to be developed because of water depth, distance from shipping lanes, and nearness to shore.

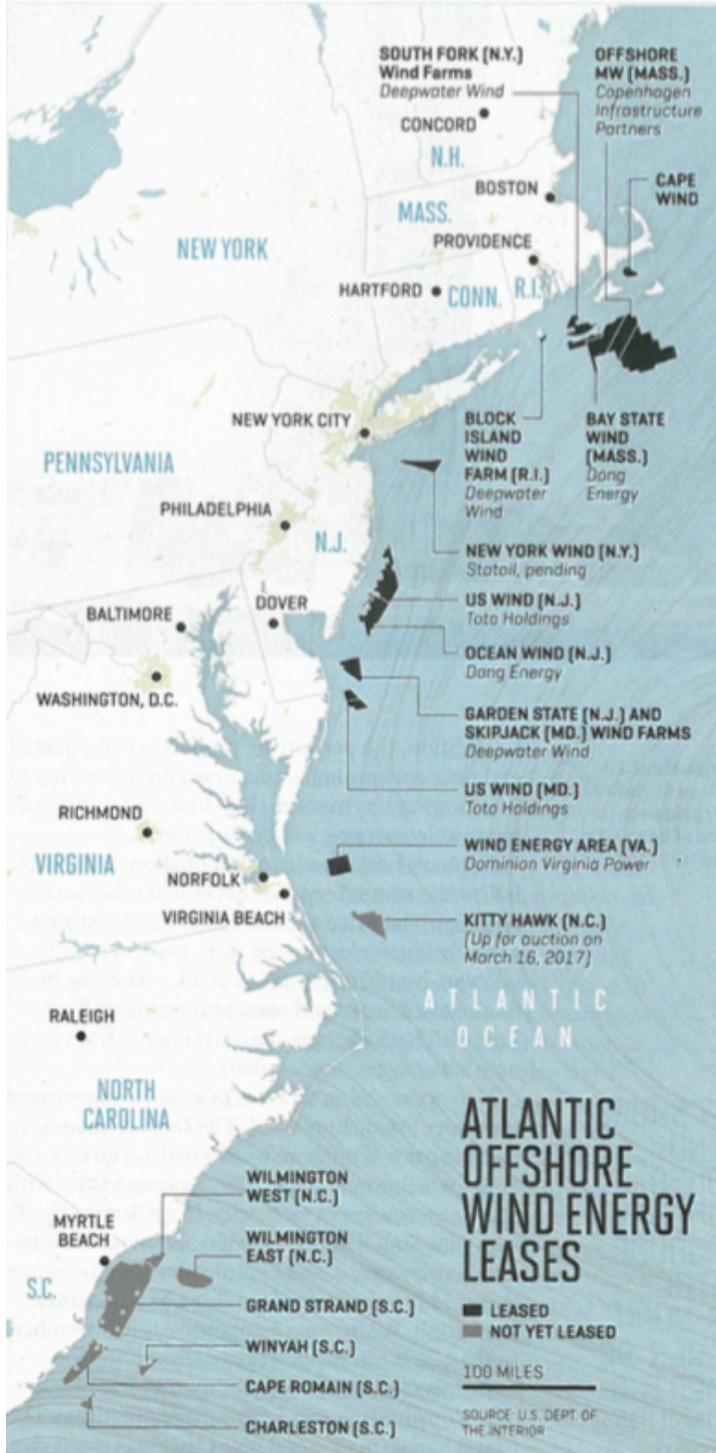
But making offshore wind viable in the U.S. won’t be easy. New projects in the U.S. cost roughly twice the national average of 7.5¢ for all sources of electricity. One reason is that America doesn’t have the infrastructure and supply chains in place to build offshore wind farms affordably.

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VIRGINIA	2,012
NEW YORK	987
HAWAII	816
RHODE ISLAND	530
MARYLAND	500
DELAWARE	450
OREGON	25
OHIO	18
MAINE	12

SOURCE: NATIONAL RENEWABLE ENERGY LABORATORY



to run. The wind power replacing it is cheaper than diesel fuel but still more than double the national electricity rate. But wind power can be competitive in select markets—heavily populated parts of the country where building a new fossil-fuel plant is expensive, if even possible. In other words, along the Northeast Corridor.

That's what Grybowski hopes to prove with his next project: building and operating the South Fork Farm, a 90-megawatt (MW) plant—enough to power 50,000 homes—30 miles off the coast of Montauk, and serving the eastern tip of Long Island. The project, which is slated to come on line as early as 2022, will provide much-needed power when the hedge fund kings and celebrities descend on the Hamptons each summer and thousands of megamansions start drawing outside loads of power. Grybowski thinks that if he can get it up and running, it might just provide the gust of momentum the industry needs to take off.

BY THE LOOK OF ITS BRIGHT but cramped office suite in downtown Providence, Deepwater Wind might seem like a shoestring operation run by a band of Birkenstock-wearing environmentalists. It's anything but. The company is principally owned by D.E. Shaw, a New York hedge fund and private equity firm, which manages \$40 billion in assets.

And Deepwater's chairman, Bryan Martin, is no tree-hugging idealist. A former partner at J.P. Mor-

gan's private equity unit, he has decades of experience building huge oil and gas projects and, later, solar and onshore wind farms as CEO of D.E. Shaw Renewable Investments, his current position. Believing that offshore wind could be the next big economic win, Martin first invested in then-fledgling Deepwater in 2007 and hired Grybowski, a lawyer and a former chief of staff to a Rhode Island governor; Grybowski moved up to CEO in 2012. Martin saw that Grybowski, an animated, quick-talking executive with an infectious laugh, had the drive to run projects like the Block Island farm, plus the political experience to navigate the complexities of federal and state policies. (The company is private and will not release financial data.)

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But replacing them with new fossil-fuel or nuclear plants, in blue states populated with citizens concerned about clean air and climate change, would be costly and controversial. When the local utility simply tried to install larger power poles on the leafy streets of East Hampton a few years ago, the public outcry was so great that the power company had to back off. Says Martin: "We have limited cost-effective options to replace aging power plants in New York and New England. Offshore wind will be one of the lowest-cost sources of new power."

Geography is also working in the favor of offshore power. Finding enough land to build giant solar and wind farms in the heavily populated east, where land values are high, poses a problem. (The town of East Hampton spent \$7 million just to buy the rights to prevent 20 acres from being developed.) Why not build wind farms in upstate New York, where land is cheap and plentiful? As it turns out, the state doesn't have the grid capacity to move the power from upstate to the population centers in the south, and building miles of new high-voltage power lines would face serious local resistance.

The technology enjoys another advantage in the region: The Atlantic is very shallow—typically 90 feet or less—near the East Coast, making it

"OFFSHORE WIND WILL BE ONE OF THE LOWEST-COST SOURCES OF NEW POWER," SAYS MARTIN, AN EXECUTIVE AT D.E. SHAW AND CHAIRMAN OF DEEPWATER WIND.

cost-effective to drive in the pylons that support the turbines. Plus, the wind blows harder and more steadily there than in many other places. Offshore wind tends to peak in the afternoon and early evening; onshore wind blows stronger at night. The biggest demand in summer comes in the afternoon and evening, when the sun is hottest and people return home from work (and the beach) and turn up their air-conditioning. It's a perfect match.

The result: a surge in interest from developers. When the Long Island Power Authority (LIPA), the agency responsible for supplying power to Long Island, asked for bids for the South Fork Wind Farm, some 20 companies, including ones that wanted to build natural-gas and biofuel plants, vied for the project. Deepwater Wind won the bidding. Under the 20-year contract, Deepwater will provide LIPA with electricity that will likely cost in the vicinity of 17¢ a kilowatt-hour. In addition, the project will help LIPA fulfill its pledge to add more renewable energy to the grid. Says Tom Falcone, the CEO of LIPA: "We hope the South Fork Farm will serve as a gateway project for us. By starting to develop that resource, the next wind farms will cost a lot less."

To deliver electricity at that price, Grybowski will have to do some scrambling. For one thing, building an offshore wind farm requires special ships and equipment. No such fleet exists in the U.S., and federal law (meant to protect American shipping) prohibits hiring European operations, which have been doing this type of work for years.

Grybowski turned to the fossil-fuel industry.

Because of the slump in oil and gas drilling, many service vessels in the Gulf of Mexico are sitting idle. For the Block Island project, Grybowski hired Gulf Island Fabrication of Louisiana to build the foundation and another Louisiana company to help install the turbines. "The Gulf ship owners see offshore wind as a big opportunity," says Grybowski. For the South Fork project, the CEO anticipates, he'll be working out of multiple ports, creating hundreds of jobs. Little by little he hopes to achieve the scale of the operations in Europe.

Deepwater is already making progress in its quest to cut costs. The company says the \$740 million South Fork farm will be 30% less expensive per unit of energy than the Block Island project. Prices of turbines are falling, and Deepwater thinks it can obtain permits more quickly this time.

OFFSHORE TURBINES boast advantages compared with their land-based brethren. They are much larger because there is simply more wind to harness over the ocean. Typically, a landlocked turbine generates 2 to 3 MWs. The ones Deepwater Wind uses for the Block Island wind farm were made by GE and crank out 6 MWs. One project in Europe has deployed 8 MW turbines, the largest in the world, made by Vestas. Each of the three blades is 265 feet long—bigger than the wingspan of a 787 Dreamliner. From waterline to the tip of the blade, the turbines stretch 722 feet, more than twice as high as the Statue of Liberty and its base combined.

These behemoths are getting smarter and more efficient. Because offshore wind turbines are bigger, taller, and in windier areas, they are 50% efficient, meaning that over time they convert half the theoretical wind power into electricity. That efficiency level is significantly higher than land-based ones. The giant turbines can rotate 360 degrees, and the blades can tilt to capture the best angle of the wind.

Some experts think that efficiency number could reach 55%, and manufacturers like GE are applying advanced software to do the job. Says Markus Rieck, managing director of commercial operation, sales, and marketing for GE's offshore wind business: "Every 1% improvement in efficiency generates a lot of cash for our customers." In one example, turbines could be designed to communicate with one another. Those nearest the wind might be blocking the airstream for those in the rear. GE's system, still in development, could use algorithms to adjust the angle of the turbines so that the maximum amount of power is produced. The software can also be used to predict when the turbines are likely to break or need maintenance to avoid sending a worker up—sometimes in horrendous weather—to check what's wrong. GE currently uses similar software for its jet engines. Next up: drones with cameras that could fly up to the turbines to detect material failure, rust, or a missing bolt.

Such technological progress will need to overcome the changed political climate in Washington. The new administration is unabashedly hostile to renewable energy, and soon after Trump's Inauguration the White House took down all mention of climate change on its website. Still, there are good political and economic reasons to support offshore wind. This fledgling industry is just the kind of heavy steel and construction project that the new President envisions for his infrastructure program. And offshore could bring a dollop of sorely needed revenue to the Treasury. The DOE estimates that annual lease payments for offshore wind projects could total \$440 million annually through 2050.

Certainly, the Republican-controlled Congress could decline to renew the subsidies that wind power now enjoys. The production tax credit, which is slated to phase out by 2020, helped the onshore wind industry become competitive and create 100,000 jobs, most of them in red states. Onshore wind doesn't need the tax credit any longer, but why not extend it for offshore wind to help create more high-paying jobs more quickly? Even if Congress doesn't come through, New York State is looking to provide some financial incentives for offshore wind. Says John Rhodes, president of NYSERDA, the agency that oversees the state's energy policy: "We want developers to come here with the certainty that they can build the wind farms and sell the power."

Some help from Washington would be nice, but Grybowski and his investors aren't counting on it. They believe they can build out this industry, if they have to, without much in the way of government subsidies. If they can deal with the endless technical challenges, and even the occasional pesky humpback whale, they just may have the gumption to go it on their own. 📌





Deepwater Wind's project near Block Island, R.I. Courtesy of Deepwater Wind

CLEAN ENERGY SPECIAL REPORT

Wind Power Takes to the Seas

Brian Dumaine

Mar 14, 2017

**The first U.S. offshore wind project is up and running.
Is it a sign of things to come?**

It was a brisk Sunday morning in October 2015, and Deepwater Wind CEO Jeffrey Grybowski's cell phone buzzed. His construction manager, who was driving piles 200 feet beneath the floor of the Atlantic Ocean, three miles from Block Island, R.I., said he had to halt work on the company's wind farm because a humpback whale had meandered near the site. Under the Endangered Species Act, it's illegal for humans to "harass"

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Deepwater CEO Jeffery Grybowski in Providence in front of bases for wind turbines. Jamel Toppin — The Forbes Collection/Contour by Getty Images

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ATLANTIC OFFSHORE WIND ENERGY LEASES



Nicolas Rapp

At the same time, state governments are generating favorable winds. Last summer, Massachusetts Gov. Charlie Baker, a Republican, signed a law that requires that state to procure

1.6 GW of offshore wind by 2027. Not to be outdone, New York’s Democratic governor, Andrew Cuomo, committed to develop 2.4 GW of offshore wind as part of his pledge to get 50% of the state’s power from renewables by 2030 (roughly twice the current percentage). As Cuomo tells *Fortune*: “New York will continue to advance the largest offshore wind development in the nation that will bring resilient and reliable power, create jobs, and combat climate change.”

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SOURCE: NATIONAL RENEWABLE ENERGY LABORATORY

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D.E. Shaw's Martin (in a blue shirt with raised fist), Grybowski (center), Rhode Island Gov. Gina Raimondo (with thumb up), and others celebrate an early construction milestone at Deepwater's wind farm in 2015. Brian Snyder — Reuters

But replacing them with new fossil-fuel or nuclear plants, in blue states populated with citizens concerned about clean air and climate change, would be costly and controversial. When the local utility simply tried to install larger power poles on the leafy streets of East Hampton a few years ago, the public outcry was so great that the power company had to back off. Says Martin: “We have limited cost-effective options to replace aging power plants in New York and New England. Offshore wind will be one of the lowest-cost sources of new power.”

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Offshore turbines boast advantages compared with their land-based brethren. They are much

larger because there is simply more wind to harness over the ocean. Typically, a landlocked turbine generates 2 to 3 MWs. The ones Deepwater Wind uses for the Block Island wind farm were made by GE (GE, +0.74%) and crank out 6 MWs. One project in Europe has deployed 8 MW turbines, the largest in the world, made by Vestas. Each of the three blades is 265 feet long—bigger than the wingspan of a 787 Dreamliner. From waterline to the tip of the blade, the turbines stretch 722 feet, more than twice as high as the Statue of Liberty and its base combined.

These behemoths are getting smarter and more efficient. Because offshore wind turbines are bigger, taller, and in windier areas, they are 50% efficient, meaning that over time they convert half the theoretical wind power into electricity. That efficiency level is significantly higher than land-based ones. The giant turbines can rotate 360 degrees, and the blades can tilt to capture the best angle of the wind.

Some experts think that efficiency number could reach 55%, and manufacturers like GE are applying advanced software to do the job. Says Markus Rieck, managing director of commercial operation, sales, and marketing for GE's offshore wind business: "Every 1% improvement in efficiency generates a lot of cash for our customers." In one example, turbines could be designed to communicate with one another. Those nearest the wind might be blocking the airstream for those in the rear. GE's system, still in development, could use algorithms to adjust the angle of the turbines so that the maximum amount of power is produced. The software can also be used to predict when the turbines are likely to break or need maintenance to avoid sending a worker up—sometimes in horrendous weather—to check what's wrong. GE currently uses similar software for its jet engines. Next up: drones with cameras that could fly up to the turbines to detect material failure, rust, or a missing bolt.

Such technological progress will need to overcome the changed political climate in Washington. The new administration is unabashedly hostile to renewable energy, and soon after Trump's Inauguration the White House took down all mention of climate change on its website. Still, there are good political and economic reasons to support offshore wind. This fledgling industry is just the kind of heavy steel and construction project that the new President envisions for his infrastructure program. And offshore could bring a dollop of sorely needed revenue to the Treasury. The DOE estimates that annual lease payments for offshore wind projects could total \$440 million annually through 2050.

Certainly, the Republican-controlled Congress could decline to renew the subsidies that wind power now enjoys. The production tax credit, which is slated to phase out by 2020, helped the onshore wind industry become competitive and create 100,000 jobs, most of

them in red states. Onshore wind doesn't need the tax credit any longer, but why not extend it for offshore wind to help create more high-paying jobs more quickly? Even if Congress doesn't come through, New York State is looking to provide some financial incentives for offshore wind. Says John Rhodes, president of NYSERDA, the agency that oversees the state's energy policy: "We want developers to come here with the certainty that they can build the wind farms and sell the power."

Some help from Washington would be nice, but Grybowski and his investors aren't counting on it. They believe they can build out this industry, if they have to, without much in the way of

government subsidies. If they can deal with the endless technical challenges, and even the occasional pesky humpback whale, they just may have the gumption to go it on their own.

A version of this article appears in the March 15, 2017 issue of Fortune with the headline "Wind on the Water."

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Way Is Cleared for Largest U.S. Offshore Wind Farm

By DIANE CARDWELL

UNIONDALE, N.Y. — Seeking to meet growing electric demand in the Hamptons with renewable energy, the Long Island Power Authority approved the nation's largest offshore wind farm on Wednesday, set for the waters between the eastern tip of Long Island and Martha's Vineyard.

The farm, with as many as 15 turbines capable of powering 50,000 average homes over all, is the first of several planned by the developer, Deepwater Wind. It will be in a 256-square-mile parcel, with room for as many as 200 turbines, that the company is leasing from the federal government.

"It is the largest project to date, but it will not be the last project," the power authority's chief executive, Thomas Falcone, said before the vote as a crowd of supporters erupted in whoops and applause.

Wind power has struggled to take off in the United States, but the Long Island project signals that the long-awaited promise of a new, lower-carbon source of electricity is poised to become part of the national energy mix.

It has been given new life by New York's push to meet Gov. Andrew M. Cuomo's goal of drawing 50 percent of the state's power from renewable sources by 2030. That goal includes 2.4 gigawatts of offshore wind, enough to power 1.25 million homes. It is the largest commitment to offshore wind in the country and is part of the state's way of showing the nascent industry it is serious about developing the resource.

"This project will not only provide a new, reliable source of clean energy but will also create high-paying jobs, continue our efforts to combat climate change and help preserve our environment," Mr. Cuomo said Wednesday in a statement, two weeks after he publicly called for the power authority to approve the proposal.

The project's cost was projected at \$1 billion but is now expected to be \$740 million. Deepwater plans to finance the project with loans and equity investments, according to Jeffrey Grybowski, the com-



DONNA ALBERICO FOR THE NEW YORK TIMES

The Long Island Power Authority's board approved a wind farm off eastern Long Island.

pany's chief executive. Mr. Grybowski expressed confidence that the project would qualify for an investment tax credit, set to phase out at the end of 2019, that is worth 24 percent of the development's cost. Whether it does, however, could be open to interpretation by the Treasury.

The turbines, each roughly 600 feet tall, would be connected to a substation in East Hampton by a 50-mile undersea cable. The town has a goal of its own: meeting all of its electric demand with renewable energy by 2020.

Other offshore wind projects, notably one off Cape Cod, have encountered opposition over their effect on ocean views. But Deepwater has said the turbines supplying East Hampton would not be visible from Montauk, on the tip of Long Island, and would barely be visible from Martha's Vineyard, 15 miles away.

The approval comes six weeks after the nation's only other functioning offshore wind-energy farm — a Deepwater project in Rhode Island state waters off

Block Island — began serving customers on the grid.

Big multinational developers like Statoil and Dong Energy are also investing in the business, snapping up leases for ocean parcels with the aim of competing for utility contracts in Maryland, Massachusetts and New York. The New York State Energy Research and Development Authority is putting together an offshore wind master plan to guide development, including a swath south of the Rockaways.

The projects have all faced some opposition, some of it from commercial fisheries concerned that the turbines, attached to the seafloor, will disrupt their businesses and consumers worried about higher electricity prices. The power authority, which plans to buy all of the Long Island farm's output over 20 years, says the cost is about the same as its other renewable energy projects, about 16 cents a kilowatt-hour. Its average electricity price is 7.5 cents a kilowatt-hour, so the project is expected to add \$119 a month to the

average customer bill.

No opposition was in evidence as the authority voted at a public meeting at its headquarters here. Several supporters praised the proposal as a way to move the electric system off fossil fuels to slow climate change, and as an engine for jobs. But much remains to be done before those benefits materialize.

First, the developers must study and map the ocean floor to determine precisely where and how to anchor each turbine, and then go through the federal and state permitting processes. The farm is to begin transmitting power by the end of 2022, so Deepwater would need to start construction no later than 2020.

"We think that thousands of megawatts are going to be built off the coast of the United States in the coming decades," Mr. Grybowski said. "It's an enormous clean energy resource. It's easy for us to tap into it, but we need projects to get from essentially one project to these thousands of megawatts."

THE WALL STREET JOURNAL.

The Wall Street Journal

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New York State's First Offshore Wind Farm Gets Green Light

Construction on the \$740 million project on Long Island will start in 2020



Long Island Power Authority CEO Thomas Falcone says a 15-turbine offshore wind farm project near Montauk, N.Y., would produce enough electricity to power 50,000 homes on Long Island. *PHOTO: FRANK ELTMAN/ASSOCIATED PRESS*

By **JOSEPH DE AVILA**

Updated Jan. 25, 2017 4:23 p.m. ET

UNIONDALE, N.Y.—The Long Island Power Authority completed an agreement Wednesday to build New York state's first offshore wind farm 30 miles east of Montauk, N.Y., the latest effort by the industry to gain traction in the U.S. market.

The authority, known as LIPA, signed a 20-year contract with Deepwater Wind LLC, a Rhode Island-based developer that began operating the first U.S. offshore wind farm off Block Island,

R.I., in December.

Construction on the \$740 million project will start in 2020 and it aims to be operational by 2022, according to Jeff Grybowski, chief executive of Deepwater Wind, which is primarily owned by hedge fund D.E. Shaw Group.

“There is a huge offshore resource right off the coast of Long Island and it extends up and down the eastern seaboard,” Mr. Grybowski said. “We think thousands of megawatts will be built off the coast of the United States in the coming decades.”

Thomas Falcone, CEO of the Long Island Power Authority, said the 90 megawatt, 15- turbine offshore wind project would produce enough electricity to power 50,000 homes on Long Island. “It’s not the last project,” Mr. Falcone said. “And it won’t be the largest project.”

Wind power off Long Island’s shores will help Governor Andrew Cuomo achieve his goal for half of New York’s power generation to originate from alternative sources by 2030.

This agreement will “continue our efforts to combat climate change and help preserve our environment for current and future generations of New Yorkers,” Mr. Cuomo said.

Norway’s Statoil ASA recently won a federal auction for \$42.5 million to lease a 79,000- acre site about 11.5 miles south of Long Island’s Jones Beach. Statoil is still awaiting final signoffs for that lease. Commercial fishermen have opposed that project, saying the

*‘It’s not the last project.
And it won’t be the
largest project.’*

—Thomas Falcone

federal government didn’t adequately analyze the impact would have on scallop and squid fishing grounds.

The offshore wind industry has been slow to take off in the U.S. compared with Europe where oil companies have invested heavily in numerous projects. But conditions holding the U.S. market back, including high infrastructure costs, have been improving, Long Island Power Authority officials said.

The U.S. introduced its federal regulatory process for offshore wind production about six years

ago, which is one of the main reasons why the industry lags behind Europe, said Nancy Sopko, director of offshore wind and federal legislative affairs with the American Wind Energy Association. Europe has been building offshore wind farms since the 1990s, Ms. Sopko said.

The federal Bureau of Ocean Energy Management has awarded 11 offshore wind leases so far, including sites for Massachusetts, Delaware and Virginia. Massachusetts Gov. Charlie Baker, a Republican, signed a bill into law in 2016 that mandated the state to solicit long-term contracts to procure 1,600 megawatts of offshore wind power.

“The United States is really catching up now,” Ms. Sopko said.

Some opponents of offshore wind farms say the turbines pose risks to ocean life and can ruin oceanfront views. Many local residents opposed Deepwater Wind’s Block Island project, located 3 miles off the coast, saying they would be an eyesore. The Montauk project doesn’t face the same pushback because of its distance from the coast. “Superman could not see it,” Mr. Falcone said.

Kit Kennedy, director of the energy and transportation program for Natural Resources Defense Council, an advocacy group, applauded the agreement between Deepwater Wind and the Long Island Power Authority.

“It’s that start of a new clean energy industry in New York and the ramping up of that industry in the U.S.,” Ms. Kennedy said.

POPULAR MECHANICS

Popular Mechanics

The Huge Transformer Ship That's Building America's Green Future

Designed to build offshore windmills, the *Brave Tern* is a ship unlike any America has ever seen.



By David Hambling Jan 24, 2017



When the Block Island Wind Farm off Rhode Island's coast powers up in January, it will be the first offshore wind installation in the U.S. While these are new sight on this side of the Atlantic, Europe's been building such mechanical farms for years—and they have some amazing, specialized hardware to help get the job done.

Take the Fred Olsen shipping company's *Brave Tern*, a 15,000-ton ship borrowed for this job. In a way, *Brave Tern* is real-world Transformer, changing from a ship to a construction platform by extending its legs to rise out of the water. Ships like this are

called windcarriers because they can both transport *and* assemble wind turbines. The U.S. simply

doesn't have anything quite like it.



A TRANS-ATLANTIC CHALLENGE

It's a minor miracle that this ship is in the Western Hemisphere in the first place. No windcarrier had ever crossed the Atlantic and planning the Tern's maiden Atlantic voyage this past July was a major operation. Brave Tern can withstand storms and heavy seas pretty well, but there isn't much space between the waterline and the main deck.

"We have to expect water on deck, so-called 'green sea,' when sailing in heavy seas," project manager Eskil Røsets told Popular Mechanics. "Mitigating the effect of any green sea was an important part of the planning."

As it braved the high seas, the Tern carried five housings that contain a turbine's working components, or nacelles, each of which is the size of a school bus. To prevent storms and green sea from damaging this sensitive cargo, workers used detail computer models of storms to prepare for every contingency. After these tests, the team created sea fastening modules, each weighing 50 tons, to hold the nacelles securely in place and also protect them from the wrath of the water.



Ships usually sail the shortest route across the Atlantic, but in this case, safety was paramount. The *Brave Tern* team balanced information regarding wind, currents, and possible storms, and settled on a route via the Azores and Bermuda. This minimized the risk of running into extreme weather, and it worked perfectly.

"Luckily, we did not encounter any of the storm conditions we planned for," says Røsets.

A MECHANICAL TRANSFORMATION

On arrival, the *Brave Tern's* first order of business was transforming from a massive ship into a construction platform. First, the ship maneuvers into position, guided precisely by GPS, using underwater jets known as tunnel thrusters. Block Island's several support barges made this parking job even more difficult. Røsets described the operation as "parking a huge ship in a small garage."

Once in place, the three-hundred-foot long legs are lowered by hydraulic jacks. Each leg has its own conical foot called a "spud can" that's 14 feet across. When the spud cans push through the mud and make contact with the seafloor, the ship is "pinned" and the positioning system is turned off.

Next, a process of "pre-loading" ensures that the platform is stable and does not lurch suddenly while being raised. Two legs diagonally opposite each other lift slightly, putting the ship's weight on two spud cans and compacting the sea bed beneath. The same process is then carried out for the opposite diagonal pair, until a firm footing is established. Finally, the vessel is raised out of the water, at a blazing speed of 16 inches- per-minute.

"This may not seem like much," says Røsets. "But considering that the vessel and all its

equipment may weigh more than 19,000 tons, it is a quite decent speed."



While all this is going on, crews prepare for the next installation. Røsets says there is not much sense of movement on the ship, apart from in the initial pinning phase. There is some noise from friction between the legs and the hull, but the whole transition from floating to elevated operation is incredibly smooth, and sometimes the vessel will be moved daily, so transforming becomes routine.

"Even after experiencing many of these operations," says Røsets, "it is still a quite unique feeling going from a floating mode with the sea level about 3.5 meters below the main deck, to an elevated mode where the sea level is 20-30 meters below you."



GETTING TO WORK Now the construction crew can finally start building.

The pre-fabricated concrete foundations had already been secured on the sea bed with steel piles able to withstand the type of storm that only comes once every thousand years, and a steel tower built on the foundations. *Brave Tern's* main crane, able to hoist eight hundred tons, puts each nacelle in place atop the tower where it is bolted into place. Then comes the tricky bit.

A special gripper known as a "blade yoke" lifts up each of the composite turbine blades, weighing 58,000 pounds precisely into position. Because of their shape, the blades can catch the wind and get pulled out of the blade yoke; but the blade will crack if gripped too tightly, so it is a delicate operation. The positioning process is guided by a worker standing inside the turbine hub. Two workers with power tools then secure the turbine blade with giant bolts three feet long -- a hundred and twenty eight of them. The total assembly process for a nacelle and the blades takes one or two days in good conditions.



After a little more than two weeks, the crew completed the Block Island project on August 18, 2016. All five turbines stand 600-feet tall, from the the tip of the turbine blade, and each one will generate six megawatts. The combined output from the five turbines can power 17,000 homes. For the U.S., it's a start but a relatively small one compared to wind farms like Holland's Gemini array—filled with 150 turbines. That's because the European Union has made a commitment to supply 20 percent of its electricity with renewable energy by 2020. The U.S. has shown far less enthusiasm.

However, Røsets says more offshore wind projects are planned along the U.S. coast and in the Great Lakes. That will mean more work for the wind carriers, and in the next few years ships like the Brave Tern could become a common sight in North American waters.



The New York Times

The New York Times

ENERGY & ENVIRONMENT

Off Long Island, Wind Power Tests the Waters

By DIANE CARDWELL JAN. 21, 2017



Wind turbines off Block Island, R.I. A larger wind farm, planned off Long Island, is up for approval **this week**. Kayana Szymczak for The New York Times

Only a few years ago, the long-held dream of harnessing the strong, steady gusts off the Atlantic

coast to make electricity seemed destined to remain just that. Proposals for offshore wind farms foundered on the shoals of high costs, regulatory hurdles and the fierce opposition of those who didn't want giant industrial machinery puncturing the pristine ocean views.

Now the industry is poised to take off, just as the American political landscape and energy policy itself face perhaps the greatest uncertainty in a generation.

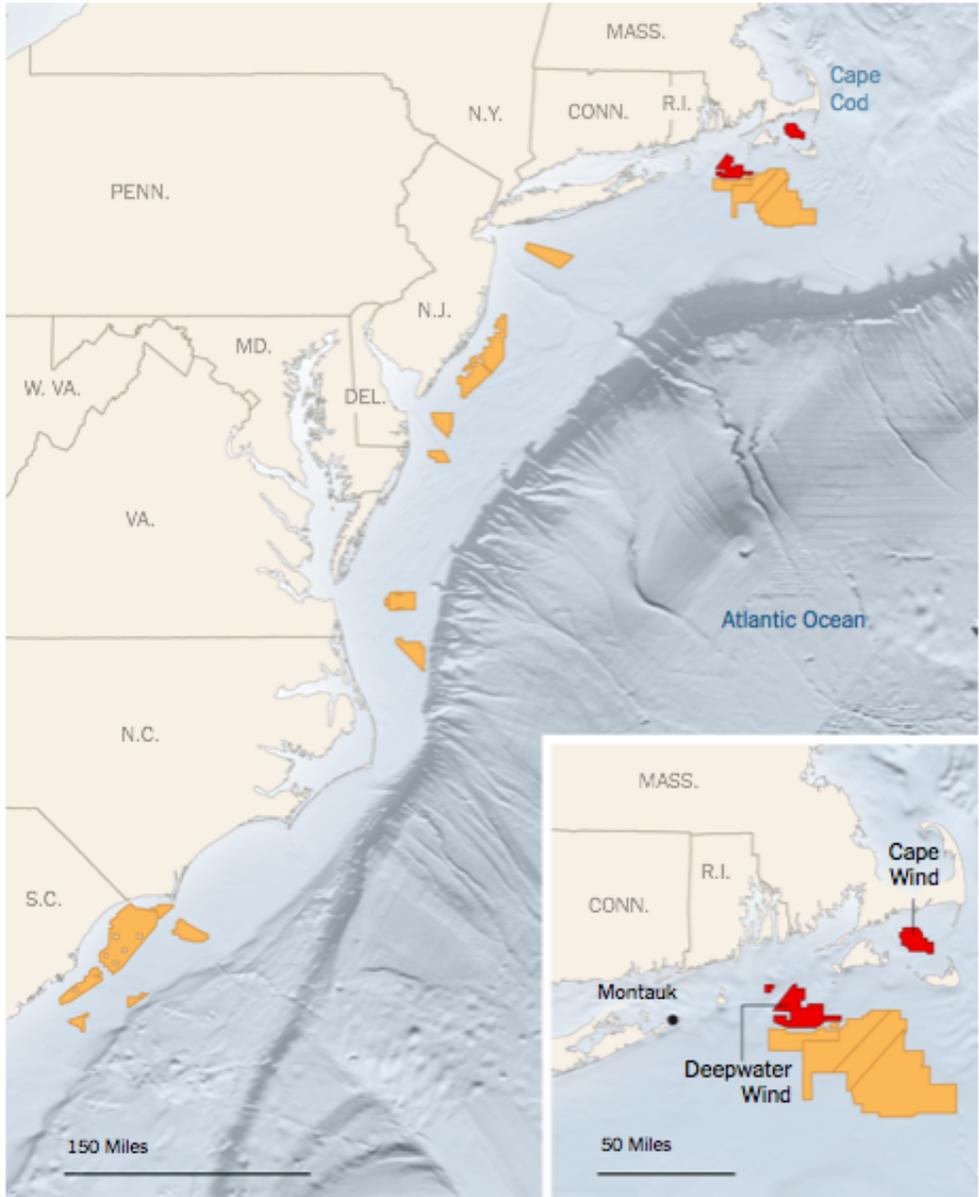
Last fall, five turbines in the waters of Rhode Island — the country's first offshore farm — began delivering power to the grid. European energy developers like Statoil and Dong Energy are making big investments to bring projects to American waters. Last year in Massachusetts, Gov. Charlie Baker, a Republican, signed into law a mandate that is pushing development forward.

And in New York, after years of stymied progress, the Long Island Power Authority has reached an agreement with Deepwater Wind, which built the Rhode Island turbine array, to drop a much larger farm — 15 turbines capable of running 50,000 average homes — into the ocean about 35 miles from Montauk. If approved by the utility board on Wednesday, the \$1 billion installation could become the first of several in a 256-square-mile parcel, with room for as many as 200 turbines, that Deepwater is leasing from the federal government.

“We're developing this first offshore wind project in federal waters, but it's really a gateway project to other locations around Long Island,” said Thomas Falcone, the power authority's chief executive. “We're now at a point where developers can build projects at prices where utilities are willing buyers, and to me that is a very big deal.”

Harnessing Power Offshore

Parcels identified for wind power development along the Eastern Seaboard.



Source: Bureau of Ocean Energy Management

By The New York Times

These projects could also become an important test case in establishing just how far states can go to to pursue their clean energy agendas under the Trump administration. Before putting steel in the water, the project would need federal approvals and policies that are in doubt amid Washington's changing of the guard.

Wind power has finally become viable for a number of delicately interlaced reasons. It has taken favorable state policies and technological and economic advances to spur the

current level of activity, as well as interest among developers and investors, including foreign oil and gas companies that see offshore wind as an important part of their corporate strategies. In Europe, where the offshore wind industry is far ahead of the United States', costs have plummeted to roughly half of what they were five years ago, said Thomas Brostrom, who runs United States operations for Dong Energy, the Danish oil and gas giant and a leading offshore wind developer.

As the industry has grown, manufacturers have been able to take advantage of economies of scale and cut their prices. At the same time, turbines have grown ever larger, allowing them to capture and produce more energy on the same site.

Dong hopes to help foster similar developments in the United States. The company bought leases in Massachusetts and New Jersey and opened an office in Boston. "We are here to create an industry," Mr. Brostrom said. "There's still a ways to go, but everything that we hoped would happen has happened."

Dong has plenty of company. Statoil, the Norwegian fossil-fuel giant, has been aiming to get into the offshore business in the United States for years, and proposed in 2011 to build a farm off the Maine coast using floating platforms it had designed. The company withdrew the project two years later amid uncertainty over changing state policies, eventually deciding to build off the Scottish coast.

Now it is back, having won a 33-round auction to secure a 79,000-acre site south of Jones Beach on Long Island. Statoil beat out several other bidders, including the state's energy agency, Dong and a subsidiary of Iberdrola, a leading energy company based in Spain. Statoil pledged \$42.5 million for the lease, which still awaits final signoffs, far more than the \$16 million generated by all earlier offshore wind auctions combined.

"There's a lot of companies starting to invest that had been wary of the U.S. offshore wind market and some of the initial lease sales," said Walter Cruickshank, acting director of the Bureau of Ocean Energy Management. "They have been coming to the table in a big way more recently."

The appeal of offshore winds as an energy source goes beyond their potential role in efforts to slow global warming. As people flock to coastal cities, where land is scarce and expensive, and conventional power plants are moving toward retirement, states have looked to add new forms of power production. Moving it out to sea has become more attractive, proponents say.

The country's coasts, home to over half the population, offer some of the strongest wind resources in the world, creating, in theory, enough energy to provide roughly four times the power the nation now produces.

Though it is easier and cheaper to construct turbines on land, the East Coast in particular offers opportunity because of its strong winds and shallow waters, which means turbines can operate farther out to sea, and out of sight. The potential of offshore wind power

converged with rising demand on Long Island's South Fork, where in areas like the Hamptons, commercial activity was rising and property owners were building larger houses, calling for

more air-conditioning and more pool pumps.

In New York, the Long Island farm is part of a plan to meet Gov. Andrew M. Cuomo's goal of drawing 50 percent of the state's power from renewable sources by 2030. That includes developing 2.4 gigawatts of offshore wind, he said in his State of the State address this month, by far the nation's highest target, equaling the capacity of the Niagara Falls generating station.

The wind array would not be visible from Montauk Point, and difficult to see from Martha's Vineyard, some 15 miles away, said Jeffrey Grybowski, Deepwater's chief executive. That makes it unlikely to stir the kind of public opposition that all but sank Cape Wind, the ambitious development that would have positioned 130 wind machines just five miles off Cape Cod but stalled in a political storm over blighted vistas.

The Rhode Island project allowed Deepwater to work through many of the obstacles that had been holding back the industry, Mr. Grybowski said, including the lack of an established permit process and acceptance on the part of the public and the electric companies. "The Block Island project made offshore wind a reality in the United States," he said, "so the conversations changed with utilities, who want to know that you can actually deliver on a project that you're proposing to them."

Indeed, officials at the Bureau of Ocean Energy Management, which approved the Cape Wind site in 2010, have spent years clarifying rules and identifying marine parcels



Turbines in the Block Island Wind Farm off Rhode Island, seen from a fishing boat. Future projects, like Deepwater Wind's plan off Long Island, could be test cases for how far states can pursue clean energy agendas under the Trump administration. Kayana Szymczak for The New York Times

suitable for wind power development in an effort to balance several often-competing concerns. Those include the needs of marine life and of industry, along with those of coastal communities. They also include the demand for economic development and clean energy sources, from states concerned about both job losses and climate change. Since 2013, the agency has conducted six

competitive auctions of long-term leases for parcels from New England to Virginia, and in the past week it announced a seventh, for North Carolina, scheduled to take place in March.

Deepwater Wind first proposed the South Fork wind farm in response to a Long Island Power Authority solicitation for projects, but it was ultimately rejected by the authority's board in favor of several solar farms. The wind developer returned the next year with a new proposal that came close to approval a number of times, but fell short.

Now, however, executives have negotiated a contract that they expect the board to approve. Under it, the utility will purchase all of the electricity delivered from the turbines by an underwater transmission line to a substation in East Hampton, paying a price comparable to what it would pay for other utility-scaled renewables like onshore wind and solar, according to the utility. Those prices have run around 16 cents a kilowatt-hour, higher than its average wholesale price of 7.5 cents.

Deepwater plans to finance the project with a mix of loans and equity investments, though it is unclear if it will be able to benefit from federal tax credits that have spurred investment in wind farms and helped reduce the price of the power they produce. Until this year, a federal investment tax credit worth 30 percent of the development cost could be claimed. That has dropped to 24 percent for projects that begin this year and is set to be phased out by the end of 2019. To qualify, the project would need to demonstrate construction activity by then, which could be open to interpretation by the Treasury Department.

But wind developers and advocates say the credit is also important to red states in the middle of the country, where it has helped drive the spread of land-based wind farms. Nurturing an offshore wind industry would meet the stated goals of many Republican lawmakers and the Trump administration, including the pursuit of an "all of the above" energy program. Building and installing the wind machines could create thousands of new jobs, as it has in the land-based wind business, in manufacturing and construction. The project would also require special vessels and large onshore staging areas to assemble the components of the platforms and turbines, which could help the shipbuilding and port industries.

"We're a heavy industry that's poised to build, employ and invest," said Nancy Sopko, who manages advocacy and federal legislative affairs at the American Wind Industry Association.

That momentum may be difficult to slow, even if new federal policies put a stop to the Bureau of Ocean Energy Management's leasing activities for wind energy, its proponents say. The active leases alone, if developed, are enough to create an industry, they say. And

the commitments of states like New York and Massachusetts, and experienced multinational developers, show that the struggle to harness Atlantic breezes is no longer the same as tilting at windmills.

"It is a sign of something that's inevitable, which is the addition of offshore wind into the energy mix," said Erik Gordon, a clinical assistant professor at the Ross School of Business at the University of Michigan. "It's just going to be too appealing. In the end, the economics trump Trump."

THE HUFFINGTON POST



Rob Sargent



Energy Program Director for Environment America

The Huffington

THE BLOG

Post

Door Opens to Offshore Wind in the United States

© 12/15/2016 04:02 pm ET

Something big happened in the smallest state in the Union this week. For the first time ever, in the U.S. National Grid customers and people on Block Island, which is off the Rhode Island coast, received electricity generated from the abundant and powerful wind that blows off our coasts.

To be sure, Deepwater Wind's Block Island Wind Farm is small compared to offshore wind farms in Europe. But, they are real. The five turbines, generate enough pollution-free energy to power 17,000 homes and have created 300 quality jobs. Block Island is perfectly suited for offshore wind. Thirteen miles off the coast, there's plenty of wind. And, until now, they have generated most of their power from dirty oil-fired power generators. So, pollution-free offshore wind power is replacing dirty and expensive electricity from oil.



In October, I had a chance to see the turbines up close, after construction had been completed. I've seen a ton of photos and videos of turbines. But, I was awestruck by their beauty and the power embodied in them. After years of building support and making the case for offshore wind, it was one of the most gratifying experiences in my career.

Offshore wind might be a perfect fit for Block Island. But, it's also very well-suited for the rest of the Atlantic Coast. The resource is abundant and federal officials have already awarded eleven commercial wind leases off the Atlantic Coasts with enough wind energy to power 6 million households. A third of the U.S. population lives on the Eastern seaboard; where nearby offshore wind energy can provide power when it's needed most: afternoons, summer heat waves, and in the winter when heating needs conflict with power needs of the grid.

Wind power would help offset dirty energy up and down the coast just as it is on Block Island. The projects already in development off the East Coast could avert 9.3 million tons of the carbon pollution fueling the climate crisis, not to mention the smog and soot pollutants that threaten our health.

Furthermore, if East Coast states go big on offshore wind as part of a comprehensive plan that ramps up energy efficiency and other renewables, they can avoid costly investments in fossil fuel infrastructure that will lock in pollution for decades.

Just as Rhode Island officials did for the waters off Block Island, the Department of Interior's "Smart from the Start" initiative has worked to designate areas up and down the East Coast suitable for offshore wind development, with the aim of building community support on the front end for responsibly-sited turbines.

Offshore wind still costs more than most of the dirty sources. But, because there are no fuel costs, offshore wind can lower electricity prices by offsetting high cost peak power. In fact, a 2014 study found that New England customer bills would be cut by 2 percent, if offshore wind were developed in the areas that have been designated. What's more, the cost of wind will come down once it's done at scale, just like we've seen with solar; where costs have declined by more than 75% in in less than ten years.

How can the rest of the East Coast catch up to Block Island? It all comes down to forward-thinking policies at the federal and state levels.

Now more than ever, we need governors and state leaders to make clear and bold commitments to offshore wind, just as Rhode Island has; and encourage more long-term power-purchase agreements for offshore wind projects, just as the Massachusetts Governor, Charlie Baker, signed into law this summer.

Rhode Island just opened the door to offshore wind in the U.S. and I am feeling the breeze. I'm confident that, with the right policies in place and a commitment from state leaders, that the

Block Island Wind Farm is just the beginning of our successful efforts to capture the abundant pollution free energy from wind off our coasts.

The New York Times

The New York Times

SCIENCE

America's First Offshore Wind Farm Spins to Life

By TATIANA SCHLOSSBERG DEC. 14, 2016



The Block Island Wind Farm's turbines off the coast of Rhode Island in August. They began spinning on Monday and will deliver electricity to Block Island, a community nearby.

Kayana Szymczak for The New York Times

Until this week, all of the wind power generated in the United States was landlocked.

But in a first for America, the ocean breeze is now generating clean, renewable power offshore — electricity that will supply a small island community off the coast of Rhode Island.

Renewable energy, including from offshore wind, is crucial to the effort to avoid some of the worst effects of climate change, according to environmentalists and some elected officials.

On Monday, the country's first offshore wind farm, developed by a company called Deepwater Wind and helped along by the state's political leadership, started spinning its turbines to bring

electricity to Block Island, a vacation destination with few year-round residents that had previously relied on diesel-fueled generators for power.

“This is a historic milestone for reducing our nation’s dependence on fossil fuels, and I couldn’t be more thrilled that it’s happening here in the Ocean State,” Senator Sheldon Whitehouse, Democrat of Rhode Island and co-founder of the Senate Climate Action Taskforce, said in a statement from Deepwater Wind.

Though the Block Island Wind Farm is small — made up of five turbines, which were built by a division of General Electric, and capable of powering about 17,000 homes — it is the first successful offshore wind development in the United States, and it sets up the possibility for offshore wind projects elsewhere along the coast.

According to a spokeswoman for Deepwater Wind, about 90 percent of the island’s needs will be met by the wind-generated power, and more will go back to the grid. Current estimates are that the wind farm will supply 1 percent of the state’s electricity, the spokeswoman said.

Despite its modest size, the wind farm, which cost about \$300 million to build, still represents a significant reduction in carbon dioxide emissions — about 40,000 tons per year.

Deepwater Wind will receive a federal tax credit for the project, and first-year rates for Rhode Island customers of National Grid, the utility company laying one of the cables to the wind farm, may be higher than what customers currently pay.

Environmentalists, members of the Obama administration and government officials in several states see significant potential for offshore wind energy, given that winds over the ocean usually blow stronger and more steadily than those on land. Earlier this year, the Obama administration announced a lease for a wind farm off the coast of Long Island, N.Y., and the Department of Energy has said that if wind farms were built in all of the suitable areas, including in the Great Lakes, they could provide up to twice as much electricity as the country now uses.

In the past, offshore wind farms have faced significant opposition in the United States for a few reasons: high costs, complicated rules about who gets to build on the seafloor and what they build, and complaints from people who do not want their ocean view obstructed.

In Europe, however, thousands of wind turbines have sprouted up along the coast, and an additional 3,000 megawatts of wind power were added last year (about 100 times the amount of power provided by the Block Island Wind Farm).

There has been some opposition to offshore wind projects in Europe, including from President-elect Donald J. Trump, who unsuccessfully fought to block construction of a wind farm off the coast of his golf course in Scotland.

Mr. Trump has expressed skepticism of wind power, saying in an interview with The New York Times that “the wind is a very deceiving thing.” And an email written by Thomas J. Pyle, who is running the Department of Energy transition for the president-elect, said that the Trump administration may be looking to get rid of all energy subsidies.

Mr. Trump has also been accused of exaggerating the harmful effects of wind turbines on bird populations, which Mr. Pyle also addressed in the email, writing, “Unlike before, wind energy will rightfully face increasing scrutiny from the federal government.”



UPI

HOME / BUSINESS NEWS / ENERGY INDUSTRY

Offshore wind makes U.S. debut

Block Island wind farm is the first in the country to start commercial operations.

By Daniel J. Graeber   | Dec. 13, 2016 at 5:58 AM

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Secretary of Interior Sally Jewel watches as construction begins on the nation's first offshore wind farm on Block Island off the Rhode Island coast on July 27, 2015. The wind farm will produce more than 100 million kilowatt hours of clean energy annually. Photo courtesy Department of the Interior

BLOCK ISLAND, R.I., Dec. 13 (UPI) -- Turbines are spinning at a wind farm off the coast of Rhode Island, powering the region for the first time in an offshore capacity, a company announced.

Project developer Deepwater Wind said its Block Island wind farm is now in commercial operations, marking a first for the United States.

"We've made history here in the Ocean State, but our work is far from over," Deepwater Wind CEO Jeffrey Grybowski said. "We're more confident than ever that this is just the start of a new U.S. renewable energy industry that will put thousands of Americans to work and power communities up and down the East Coast for decades to come."

Construction on the five foundations, which were built by a Louisiana company whose specialty is the offshore oil and gas industry, began last summer.

At peak capacity, the project should yield 30 megawatts of electric power, powering the 17,000 homes on Block Island, 12 miles from the mainland, that currently use diesel fuel for electricity. Excess electricity will be carried to the mainland by cable.

The turbines are 589 feet above sea level, making them among the tallest in the world. The offshore wind energy industry is in its infancy in the United States, but already supplying Europe with more than 11,000 megawatts of power. Germany and Britain are among the world leaders in offshore wind energy.

According to American Wind Energy Association, offshore wind has the capacity to produce four times as much power as what's currently on the U.S. grid. With policies moving in support of an industry that's become more efficient, the AWEA said there are offshore wind projects in various planning stages in most U.S. territorial waters, including the Great Lakes.

"Rhode Island is proud to be home to the nation's first offshore wind farm -- and I'm proud to be the only governor in America who can say we have steel in the water and blades spinning over the ocean," Rhode Island Gov. Gina Raimondo said.



[The Christian Science Monitor](#)

ENERGY/ENVIRONMENT

First Look

Block Island opens: Will the breeze keep blowing in offshore wind's direction?

The Block Island Wind Farm, the nation's first offshore wind farm, could be a pilot project leading to more – unless energy priorities shift under President-elect Donald Trump.

By Ben Rosen, Staff ▼ | DECEMBER 13, 2016



The nation's first offshore wind farm has begun to provide power to Rhode Island in what developer Deepwater Wind, federal regulators, and industry experts hope is the first of many to dot US waters.

“We’re more confident than ever that this is just the start of a new US renewable energy industry that will put thousands of Americans to work and power communities up and down the East Coast for decades to come,” said Jeffrey Grybowski, the chief executive officer of Deepwater Wind, in a statement Monday.

The opening of the Block Island Wind Farm off the Rhode Island coast marks a major milestone for an industry that has been slow to get off the ground in the United States. Europe, in comparison, has built a multi-billion-dollar offshore wind industry over the past two decades.

But states and federal regulators in the US have been placing bets on offshore wind through legislation and strategic plans as a way to generate more renewable energy in the face of aging power plants shuttering across the country.

At its peak, the Block Island Wind Farm – built by union labor – can power at least 17,000 homes, producing 30 megawatts of power at peak capacity. Its first priority is the small community living on Block Island. Then, all excess electricity flows through a submarine transmission cable into New England’s power grid.

The five towering turbines, clearly visible from the Block Island coast, cost almost \$300 million to build.

The farm is considered a pilot project, especially in comparison to Europe, where thousands of offshore turbines already produce energy and where offshore wind farms with 300 turbines are in development, according to The New York Times. In general, offshore wind farms are seen as more reliable than onshore ones. Strong, steady wind that blows day and night makes coastal waters ideal for wind energy production.

“But building offshore turbines brings with it greater challenges than building onshore ones,” wrote David Unger for The Christian Science Monitor in 2013. “Higher costs, harsh waters, concern for local ecosystems, and the desire to preserve scenic ocean views have kept the US offshore industry in relative infancy compared with onshore” and with Europe.

Then there’s the cost. In Europe, after decades of widespread use, a single turbine still costs up to \$30 million to install and connect to the power grid, reports the Times.

But state and federal regulators see the power potential of offshore wind as offsetting its current costs. A national offshore wind industry could generate twice the nation's

current electricity needs, according to a report the US Departments of Energy and the Interior released in September. That strategic plan calls for wind power to provide 20 percent of the nation’s electricity by 2030 – a dramatic increase from the 4.5 percent it currently provides.

New England states, with high energy demands and few power plants, have been early leaders in the call for offshore wind power. Massachusetts and New York recently passed laws requiring their energy grids to receive a significant amount of their energy from wind. Gov. Charlie Baker (R) of Massachusetts signed legislation over the summer that requires utilities to procure a combined 1,600 megawatts of electricity from offshore wind farms by June 2027.

The Department of the Interior’s Bureau of Ocean and Energy Management has also awarded 11 commercial offshore wind energy leases for sites in the Atlantic. Another lease sale is set for Thursday for the rights to develop a huge offshore wind farm between New York and New Jersey, although commercial fishing companies, trade groups, and seaport communities have asked a court to delay it, reports the Associated Press.

Developers have also requested commercial wind leases off the coasts of California and Hawaii.

While supporters point to the Block Island wind farm as just the first step toward a green energy future, the winds could turn under the Trump administration. President-elect Donald Trump has criticized wind farms, calling them ugly and getting into a protracted legal fight with the government of Scotland over offshore wind farms near a Trump-owned golf course, comparing them to a terrorist attack. He has also promised to tear up President Obama’s Clean Power Plan, a driver for offshore wind and other renewable energies.



FORTUNE

Fortune

Why the Country's First Offshore Wind Farm Is Such a Big Deal

by Katie Fehrenbacher

@katiefehren

OCTOBER 26, 2016, 3:30 PM EDT



**A boat passes in front of the
Deepwater Wind Block Island
Wind Farm on September 14,
2016.**

Eric Thayer — Bloomberg via Getty
Images

Wind energy is getting really, really cheap.

When fifteen 240-foot-long spinning fiberglass blades off the coast of Rhode Island

finally start converting wind into power before the end of this year, history will be made. The Block Island wind project—five 560-foot-tall wind turbines attached to the seafloor via steel—will be the first offshore wind farm operating in U.S. waters.

Previous efforts to build wind farms off the East Coast have famously failed (Ted Kennedy helped torpedo one to protect the view from his Cape Cod estate), but there are now almost a dozen planned for the region.

What changed? Over the past six years the price of wind energy has plummeted, finally becoming cost-competitive with traditional power. And while offshore farms are still significantly more expensive, they have become increasingly appealing for coastal states with little open space, large urban populations, and soon-to-be-retired nuclear plants.

In Europe, offshore wind already powers over a million homes. Denmark's DONG Energy went public this summer in one of Europe's largest IPOs of 2016. But to get to that level, the U.S.

industry will still need government incentives, like the game-changing law Massachusetts passed this past summer that requires the state's utilities to buy 1.6 gigawatts of energy from offshore wind farms over the next decade. Expect plenty more ocean views to feature turbines.



[Bloomberg Markets](#)

U.S. Plans Offshore Wind Expansion That Could Supply Entire U.K.

by **Chris Martin**
🐦 cleantechchris

September 9, 2016 – 1:05 PM EDT



■ Three wind turbines from the Deepwater Wind project off Block Island, R.I. Photographer: Michael Dwyer/AP
Photo

- ▶ Energy, Interior Departments see path to 86 gigawatts by 2050
- ▶ First U.S. offshore wind farm built off Rhode Island coast

The U.S. just completed its first offshore wind farm, with 30 megawatts of capacity off the coast of Rhode Island, and has laid out a plan to reach 86,000 megawatts by 2050, almost enough to power the U.K.

The departments of Energy and Interior are planning a joint effort to support offshore wind farms

over the next five years, a move aimed at reducing cost and development risks and easing the regulatory constraints that have hindered construction to date, according to a statement Friday.

There's enough potential wind power off U.S. coastlines, 2 terawatts, to almost double the nation's total installed capacity, yet the high cost of turbines at sea have prevented development. Increasing the scale of the industry would help offshore wind become competitive in some areas by 2025, with a cost of less than \$100 a megawatt-hour, according to a report issued Friday by the two agencies.

"The first offshore wind farm has now finished construction, and we have gone from zero offshore wind areas leased before this administration to 11 areas that total the size of Rhode Island," Energy Secretary Ernest Moniz said in the statement.

The agencies have set 30 objectives over the next five years to help encourage development, building on a 2011 plan that led to an allocation of \$200 million for three demonstration projects in Maine, New Jersey and Ohio, in Lake Erie.

Adding 86,000 megawatts of wind power would almost match the 96,000 megawatts of installed capacity in the U.K. It would support 160,000 jobs, reduce the amount of water consumed by U.S. power plants by 5 percent and cut greenhouse gas emissions by 1.8 percent, the Energy Department said.

The logo for The New York Times, featuring the newspaper's name in a classic, blackletter-style font.

SUNDAY, AUGUST 28, 2016

The Unlimited Power of Ocean Winds

The first offshore wind farm in American waters, near Block Island, R.I., was completed this month. With just five turbines, the farm won't make much of a dent in the nation's reliance on fossil fuels, but it shows the promise this renewable energy source could have. When the turbines start spinning in November, they will power the island, which currently relies on diesel generators, and will also send electricity to the rest of Rhode Island.

Putting windmills offshore, where the wind is stronger and more reliable than on land, could theoretically provide about four times the amount of electricity as is generated on the American grid today from all sources. This resource could be readily accessible to areas on the coasts, where 53 percent of Americans live.

This technology is already used extensively in Britain, Denmark, Germany and other European countries, which have in the last 15 years invested billions of dollars in offshore wind farms in the North, Baltic and Irish Seas. In 2013, offshore wind accounted for 1.5 percent of all electricity used in the European Union, with all wind sources contributing 9.9 percent of electricity. By contrast, wind power made up only 4.7 percent of electricity in the United States last year.

While electricity generated by offshore wind farms is more expensive than land-based turbines, costs have fallen with larger offshore turbines that can generate more electricity. Construction firms have also become more efficient in installing offshore farms.

The United States is coming late to offshore wind partly because federal and state governments were slow to support it. A bitter fight between residents on Cape Cod and developers of a wind farm in Nantucket Sound known as Cape Wind, along with financial problems, helped torpedo that project and may have discouraged others from pursuing similar ventures.

But in recent years, the Obama administration has issued regulations to encourage the lease of federal waters to private wind-power developers. And states like Massachusetts, Rhode Island and New York have pledged to support the nascent industry by requiring local utilities to buy the electricity that offshore turbines generate.

Gov. Charlie Baker of Massachusetts, a Republican, recently signed legislation that directs utilities to purchase 1,600 megawatts of offshore wind power — or about 2 percent of the total wind-energy capacity of the United States in 2015. New York State has committed to getting 50 per-



cent of its electricity from renewable sources by 2030, and officials say a big chunk of that will come from offshore wind farms.

There are 22 other offshore wind projects in various stages of development across the country, according to a recent report by the Lawrence Berkeley National Laboratory. Many of them are in the Northeast, including a proposal before the Long Island Power Authority for a wind farm 30 miles off the coast of Montauk that would supply electricity to the Hamptons. The Atlantic coast is a good place to build wind farms because the water is relatively shallow, which makes it cheaper to install the turbine platforms. Pacific coast waters, being much deeper, would require placing turbines on more expensive floating platforms.

A few decades ago, the idea of harnessing the power of ocean winds seemed entirely impractical. In the next 10 years, these offshore farms should become commonplace.

The New York Times

SUNDAY, AUGUST 28, 2016

The Chatter

“The attitude was, ‘It’s not going to happen; you guys can’t do it.’”

Jeffrey Grybowski, C.E.O. of Deepwater Wind, which is operating the first offshore wind farm in the United States, off the coast of Rhode Island.

The New York Times

[The New York Times](#)

The Unlimited Power of Ocean Winds

By THE EDITORIAL BOARD AUG. 27, 2016



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Barack Obama ✓
@BarackObama



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Rhode Island just built America's first offshore wind farm, which will create clean energy and fight climate change.



America's First Offshore Wind Farm May Power Up a New Industry

A just-completed project off the coast of Rhode Island, though relatively tiny, is at the forefront of a sea-based transition to renewable energy.

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The New York Times

TUESDAY, AUGUST 23, 2016 D1

ScienceTimes

The New York Times

BY DEGREES | JUSTIN GILLIS



Power in a Sea Breeze

The first offshore wind farm in the U.S. heralds a growing renewable energy industry.

BLOCK ISLAND, R.I. — The towering machines stand a few miles from shore, in a precise line across the seafloor, as rigid in the ocean breeze as sailors reporting for duty.

The blades are locked in place for now, but sometime in October, they will be turned loose to capture the power of the wind. And then, after weeks of testing and fine-tuning, America's first offshore wind farm will begin pumping power into the New England electric grid.

By global standards, the Block Island Wind Farm is a tiny project, just five turbines capable of powering about 17,000 homes. Yet many people are hoping its com-

pletion, with the final blade bolted into place at the end of last week, will mark the start of a new American industry, one that could eventually make a huge contribution to reducing the nation's climate-changing pollution.

The idea of building turbines offshore, where strong, steady wind could, in theory, generate large amounts of power, has long been seen as a vital step toward a future based on renewable energy. Yet even as European nations installed thousands of the machines, American proposals ran into roadblocks, including high costs, murky rules about the use of the seafloor, and stiff opposition from people who did not want their ocean views marred by machinery.

"People have been talking about offshore wind for decades in the United States, and I've seen the reaction — eyes roll," Jeffrey Grybowski said last week in an interview on Block Island. "The attitude was, 'It's not going to happen; you guys can't do it.'"

Mr. Grybowski and the company he runs, Deepwater Wind of Providence, R.I., have now done it. They had a lot of help from the political leadership of Rhode Island, which has seized the lead in this nascent industry, ahead of bigger states like New York and Massachusetts.

Now, offshore wind may be on the verge of rapid growth in the United States.

Using a law passed by a Republican-led Congress in 2005 and signed by President

George W. Bush, the Obama administration has been clarifying the ground rules and leasing out large patches of the ocean floor for wind-power development. Nearly two dozen projects are on the drawing board, with some potentially including scores of turbines.

Equally important, state governments in recent months have been making big, new commitments to renewable power, driven by a rising sense of urgency about climate change.

Gov. Andrew M. Cuomo of New York set a goal of getting 50 percent of the state's power from renewable sources by 2030, and the state will probably need large offshore

CONTINUED ON PAGE D6

Power in a Sea Breeze



PHOTOGRAPHS BY KAYANA SZYMCAK FOR THE NEW YORK TIMES

CONTINUED

FROM

wind farms to help achieve that. In Massachusetts, state Republican governor, Charlie Baker, just signed a bipartisan bill ordering the state's utilities to develop contracts with offshore wind farms for an immense amount of power, 50 times the expected output of the Block Island Wind Farm.

Other states are looking at wind power, too, and studies by the Department of Energy suggest that many thousands of these turbines may eventually ring the United States coastline.

If that sounds ambitious, consider that the country has installed some 50,000 wind turbines on land over the past two decades. They now supply roughly 5 percent of the nation's electric power, a figure that reaches double digits in particularly windy states like Kansas and Iowa.

The turbines are easier and cheaper to build on land. But the wind is also weaker on land, and the power the machines produce there is intermittent. The stronger breezes in the ocean can produce steadier power, potentially helping to balance out intermittent renewable sources like solar panels and on-shore turbines.

The technology has been proved in Europe, where offshore wind farms as large as 300 turbines are being developed, with each turbine costing up to \$30 million to build, install and connect to the power grid.

But the first major proposal in the United States, an immense project off Cape Cod that was to be called Cape Wind, was too big — 130 turbines — and too close to shore, many experts now believe. It drew ferocious opposition from oceanfront homeowners, gradually lost political support in Massachusetts and appears unlikely to go forward.

The companies now trying to start an offshore wind industry are determined not to repeat the mistakes that plagued Cape Wind. That is one reason Deepwater Wind decided to start with a small project.

The focus is still on the Northeast. That region has dense cities with strong electrical demand, high power prices, opposition to new power plants on land and some of the world's stiffest ocean breezes off the coast. And the water remains relatively shallow many miles from shore, so wind farms could be installed far enough away that most of them would not be visible from the beaches.

With Northeastern states committing to the idea, the big question is: How much would it cost to get thousands of offshore turbines up and running?

When the first offshore projects were built two decades ago, European nations had to promise the developers extremely high prices for the electricity generated by their turbines, sometimes three or four times the wholesale power price, to get a new industry going.

Since then, offshore wind turbines have become a big business in Europe, worth billions, and the companies installing them have been able to create economies of scale. Recently, European nations have scrapped their old subsidy methods and have used competitive bidding to drive down the cost of the projects.

In some ways, the United States benefited by waiting for the industry to mature, as it can now take advantage of those falling costs. Installation is still pricier here than in Europe, and may be for a while, because few American companies have invested in the boats and other gear necessary to do the work.

The Block Island turbines were built overseas by a division of General Electric and were installed by a ship from Norway, brought over at a cost of millions of dollars, with help from an American vessel.

Yet if states go forward with their plans, experts say the costs are likely to fall sharply as domestic industry scales up to meet the demand. On the Block Island project, a company in Houma, La., won the contract to build the metal foundations in the water, and other Gulf Coast businesses that have long built offshore oil structures see wind power in the Northeast as a potential new market.

For now, the construction of the first wind farm off an American coast sends a simple

message to governments, investors and citizens: It can be done.

"Spectacular!" Mr. Grybowski said from the deck of a boat last week as he watched the final stages of construction.

The Block Island project was a marriage of Rhode Island political will and New York financial expertise. Initial financing for the \$300 million project came from the D. E. Shaw Group, a big investment firm based in Manhattan.

D. E. Shaw's head of United States private equity investment, Bryan Martin, had invested huge sums over the years on the firm's behalf in onshore wind farms, convinced that renewable energy was poised to displace fossil fuels. He saw offshore wind power as the next step and has been pushing the Block Island wind farm and other Deepwater Wind projects forward for more than a decade.

The turbines are about three miles off Block Island and can be seen easily from land. That drew some opposition, and could have been fatal.

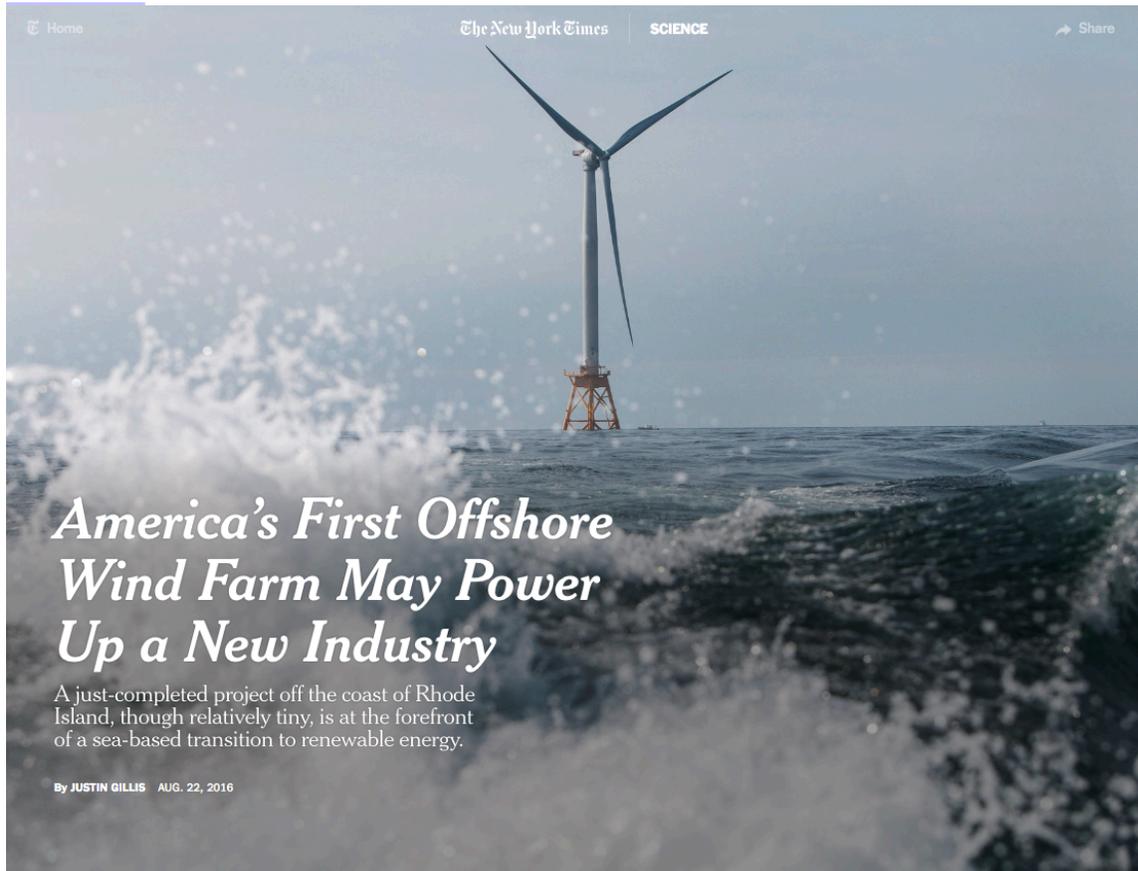
But Block Island is a rustic vacation spot where residents turned out to be largely supportive of the project. Not only does it help the environment, but it will connect their power grid to the mainland for the first time, giving them a more reliable supply.

Competitors are moving to challenge Deepwater Wind for the coming wave of offshore contracts, but the company hopes to hold its lead and win the next project, a proposed wind farm 36 miles off Montauk, N.Y., meant to supply the power-hungry South Fork of Long Island.

"I do believe that starting small has made sense," said Mr. Martin, who is also Deepwater Wind's chairman. "I would say that the next projects are going to be substantially bigger."

The New York Times

The New York Times



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Gov. Andrew M. Cuomo of New York set a goal of getting 50 percent of the state’s power from renewable sources by 2030, and the state will probably need large offshore [wind farms](#) to help achieve that. In Massachusetts, a Republican governor, Charlie Baker, just signed a bipartisan bill ordering the state’s utilities to develop contracts with offshore wind farms for an immense amount of power, 50 times the expected output of the Block Island Wind Farm.

Other states are looking at wind power, too, and [studies by the Department of Energy](#) suggest that many thousands of these turbines may eventually ring the United States coastline.

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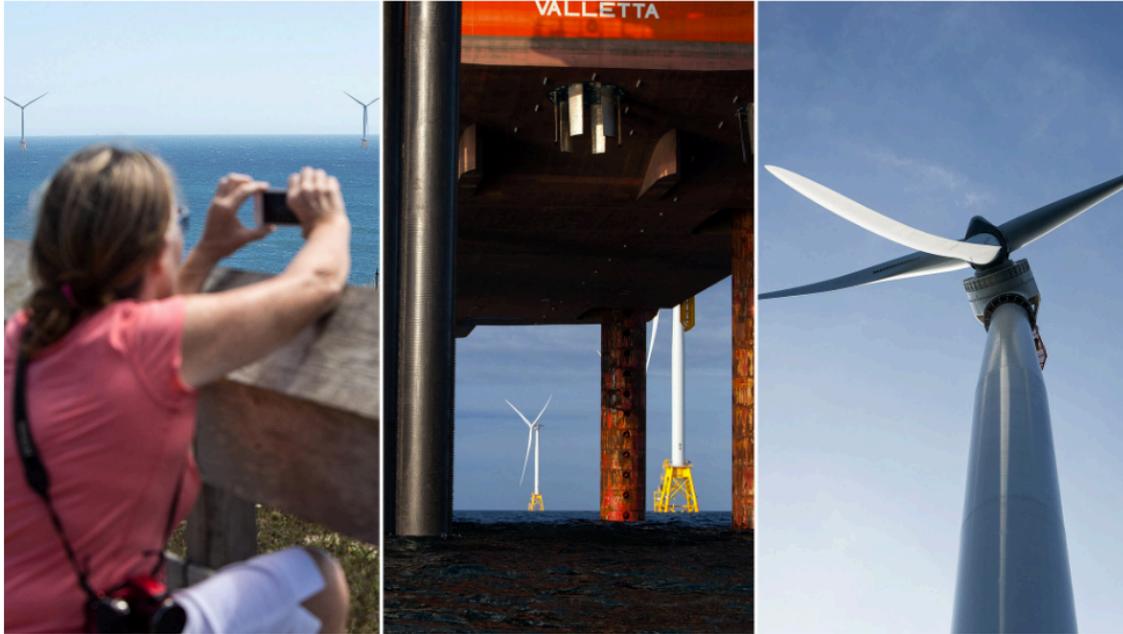
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From left: Mimi LeVeille, a local resident, photographing the Block Island Wind Farm from the shore of New Shoreham, R.I.; some of the wind farm's turbines as seen through the main installation vessel, which erected them; one of the project's turbines, which are to be cranked up in October.
Kayana Szymczak for The New York Times

The companies now trying to start an offshore wind industry are determined not to repeat the mistakes that plagued Cape Wind. That is one reason Deepwater Wind decided to start with a small project.

The focus is still on the Northeast. That region has dense cities with strong electrical demand, high power prices, opposition to new power plants on land and some of the world's stiffest ocean breezes off the coast. And the water remains relatively shallow many miles from shore, so wind farms could be installed far enough away that most of them would not be visible from the beaches.

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When the first offshore projects were built two decades ago, European nations had to promise the developers extremely high prices for the electricity generated by their turbines, sometimes three or four times the wholesale power price, to get a new industry going.

Since then, offshore wind turbines have become a big business in Europe, worth billions, and the companies installing them have been able to create economies of scale. Recently, European nations have scrapped their old subsidy methods and have used competitive bidding to drive

down the cost of the projects.

In some ways, the United States benefited by waiting for the industry to mature, as it can now take advantage of those falling costs. Installation is still pricier here than in Europe, and may be for a while, because few American companies have invested in the boats and other gear necessary to do the work.

The Block Island turbines were built overseas by a division of General Electric and were installed by a ship from Norway, brought over at a cost of millions of dollars, with help from an American vessel.



Two of the project's wind turbines, about three miles away, can be seen from shore on Block Island, but island residents have been largely supportive. Kayana Szymczak for The New York Times

Yet if states go forward with their plans, experts say the costs are likely to fall sharply as domestic industry scales up to meet the demand. On the Block Island project, a company in Houma, La., won the contract to build the metal foundations in the water, and other Gulf Coast businesses that have long built offshore oil structures see wind power in the Northeast as a potential new market.

For now, the construction of the first wind farm off an American coast sends a simple message to governments, investors and citizens: It can be done.

“Spectacular!” Mr. Grybowski said from the deck of a boat last week as he watched the final stages of construction.

The Block Island project was a marriage of Rhode Island political will and New York financial expertise. Initial financing for the \$300 million project came from the D. E. Shaw Group, a big

investment firm based in Manhattan.

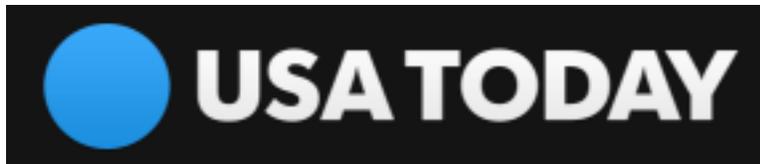
D. E. Shaw's head of United States private equity investment, Bryan Martin, had invested huge sums over the years on the firm's behalf in onshore wind farms, convinced that renewable energy was poised to displace fossil fuels. He saw offshore wind power as the next step and has been pushing the Block Island wind farm and other Deepwater Wind projects forward for more than a decade.

The turbines are about three miles off Block Island and can be seen easily from land. That drew some opposition, and could have been fatal.

But Block Island is a rustic vacation spot where residents turned out to be largely supportive of the project. Not only does it help the environment, but it will connect their power grid to the mainland for the first time, giving them a more reliable supply.

Competitors are moving to challenge Deepwater Wind for the coming wave of offshore contracts, but the company hopes to hold its lead and win the next project, a proposed wind farm 36 miles off Montauk, N.Y., meant to supply the power-hungry South Fork of Long Island.

"I do believe that starting small has made sense," said Mr. Martin, who is also Deepwater Wind's chairman. "I would say that the next projects are going to be substantially bigger."



USA Today

Offshore wind farm a green-energy milestone

Bill Loveless, for USA TODAY 7:32 a.m. EDT August 21, 2016



(Photo: Deepwater Wind)

The first offshore wind energy farm in the USA is up and nearly ready to go, marking a new chapter in the nation's changing electricity grid.

Thursday, workers finished installing the last of five turbines off Rhode Island's coast, a little more than a year after the Providence-based developer Deepwater Wind first put steel in the water.

"A lot's happened over the last year," said Jeff Grybowski, CEO of Deepwater Wind. "I feel like the industry has really turned the corner."

As Grybowski spoke, a Norwegian ship called the Brave Tern and two other vessels mounted General Electric turbine nacelles — the housing for the generating equipment — on 270-foot towers in state waters 3 miles southeast of Block Island.

Now that all the turbines are installed, the next step is commissioning and testing the equipment, which will take several weeks.

Once that's done, the turbines will begin generating power to Block Island and the mainland via a 20-mile cable installed by National Grid, the utility that provides electric power to Rhode Island.

The \$300 million wind farm is relatively small, with 30 megawatts of capacity, enough to power about 17,000 homes in Rhode Island, including dwellings on Block Island, where costly diesel fuel is used to keep the lights on.

The farm's impact may be much larger as it demonstrates the potential for offshore wind energy while coastal states such as Rhode Island, Massachusetts and New York look increasingly to renewable energy to reduce their carbon emissions.

“It’s really difficult for a utility to say, 'We’d like to see you build a couple of hundred megawatts' if no one has even been successful building 1 megawatt offshore,” Grybowski said. “Utilities have seen the success of the Block Island project. That makes them comfortable with this new resource.”

Grybowski is gearing up for his company’s next big undertaking, one with the potential for up to 200 turbines with 1 gigawatt of capacity in 256 square miles of federal waters 30 miles southeast of Montauk, N.Y.

The Long Island Power Authority recently announced plans to acquire 90 megawatts of capacity from 15 Deepwater Wind turbines in the area, though the financial terms need to be worked out.

If the deal is struck, Deepwater Wind could supply the electricity by 2022, including two battery units to store power for peak demand.

Grybowski sees the potential for deals with utilities in Massachusetts, where Gov. Charlie Baker signed energy legislation in July that includes a provision for 1,600 megawatts of offshore wind energy by 2027.

Grybowski's company is hardly alone in seeking opportunities to provide the region with electricity from offshore waters. Two other developers — the mega-wind farm builder Dong Energy of Denmark and New Jersey-based OffshoreMW — hold federal leases in waters adjacent to those designated for Deepwater Wind.

“I think offshore wind is going to be a very large component of the new power plants that we’re going to build here in the Northeast going forward over the next several decades because it’s a big resource and it’s a clean resource,” Grybowski said.

The potential for offshore wind energy spreads beyond the Northeast. The U.S. Bureau of Ocean Energy Management (BOEM) awarded 11 commercial wind energy leases off the Atlantic coast, though project development is much further behind the Block Island venture in other areas.

There’s interest on the West Coast, too, despite deep waters that make projects off California, Oregon and Washington more challenging than those off the East Coast.

Offshore wind resources could contribute up to four times the generating capacity of the U.S. electric system, according to the American Wind Energy Association.

As he prepares to move ahead, Grybowski wants to employ more U.S.-based contractors in building wind energy farms and rely less on firms from Europe, where wind farms dot offshore waters.

The Block Island Wind Farm has given a lift to the Rhode Island economy, employing about 300 state residents in the project, from ironworkers to scientists, Grybowski said.

Workers travel to the turbines aboard a \$4 million catamaran built in Bristol, R.I., by Blount Boats and operated by Rhode Island Fast Ferry.

“They see this as not just one project but an opportunity to get into a new field,” Grybowski said of local contractors. “It’s opening up a new industry for them.”



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3 MINUTE READ | WORLD CHANGING IDEAS

America's First Offshore Wind Farm Is Almost Ready

Check out these photos of its impressive installation process.

JESSICA LEBER | 08.17.16 | 6:00 AM













A milestone for American renewable energy that has been almost a decade in the making is

nearing completion off the coast of Rhode Island. The nation's first offshore wind farm is now rising and is expected to be completed this fall. Look at the photos above to see details of its impressive construction.

The five-turbine, 30-megawatt project off the coast of Block Island is actually tiny compared to the 100-plus turbine farms that are common in Europe. What will be the world's largest offshore wind farm, with 300 turbines and 1,800 megawatts, was just approved this week in the U.K. But America has been far slower to adopt offshore wind technology, with proposals stalled by regulators and lawsuits.

Deepwater Wind began construction on the Block Island Wind Farm in 2015. American companies, some from the oil and gas sector, built the foundations and laid undersea fiber cables. GE Renewable Energy is responsible for the turbines themselves, bringing the towers and blades from Europe, where they are made and assembled at a site in Providence over nine months. Each 650-foot-tall turbine has three blades, each weighing 29 tons each and longer than half a football field. The tower itself, broken into three sections, weighs 440 tons.

GE is out on ships now installing the wind turbine structures in a round-the-clock operation that they expect to last a total of about 25 days.



"The tricky part is the weather conditions," says Eric Crucerey, GE Renewable Energy's project manager, speaking by phone from aboard the 433-foot-long installation vessel at the Block

Island Offshore Wind Farm site. The ship is jacked up to a stable platform and then uses cranes capable of lifting up to 800 tons. Too much wind, and they have to delay the work.

Offshore projects are much more expensive to build than onshore, but because it's windier off the coast, the projects can ultimately generate more energy once they are built. The Block Island Wind Farm, at a cost of \$290 million, is expected to power about 17,000 homes and produce most of Block Island's energy needs (the island, isolated from the mainland, currently relies on diesel fuel.) But the project created plenty of controversy, both because opponents say they will pay too much for its electricity and from coastal residents who say the turbines will spoil their view.



Some hope the Block Island project opens the floodgates for more offshore wind. Massachusetts just passed a bill requiring utilities to source 1,600 megawatts of offshore wind electricity in the coming decades, and a number of projects are in planning stages up and down the East Coast. One is Deepwater Wind's 256-square-mile Deepwater One site, which could eventually hold up to 250 turbines. Overall, the U.S. Department of Energy estimates the technical potential for offshore wind in the U.S. to be more than 4,000 gigawatts, much more electricity than the entire country currently consumes.

Anders Soe-Jensen, CEO of Offshore Wind for GE Renewable Energy, says that costs for the technology will continue to drop, especially if the U.S. builds more and more projects. Ninety percent of all offshore wind is in Europe today, where there are 11 gigawatts installed.

"The U.S. is going to have the great advantage in that in Europe we have been trailblazing this

road already," he says. "Mind you, we cannot compare directly. We [in Europe] are executing much more. We have a supply chain already that is geared for serial production. Serial production will always be cheaper than individual projects."

Have something to say about this article? You can email us and let us know. If it's interesting and thoughtful, we may publish your response.



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Bloomberg Markets

America's First Offshore Wind Farm Is Nearly Ready

by [Joe Ryan](#)
[JoeRyanNews](#)

August 16, 2016 — 12:55 PM EDT



■ Deepwater Wind LLC project off the coast of Rhode Island. Photographer: Joe Ryan/Bloomberg

- ▶ The 30-megawatt development to go into service in November
- ▶ Europe has more than 10,000 megawatts of offshore wind

Deepwater Wind LLC is on the verge of completing the first offshore wind farm in U.S. waters, a milestone for an industry that has struggled for a more than decade to build in North America.

Workers have installed blades on four of the five 589-foot turbines at the site off the coast of Rhode Island and construction may be complete as early as this week, according to Chief Executive Officer Jeff Grybowski. The 30-megawatt, \$300 million project is expected to begin commercial operation in early November.

“We will finish in advance of our original schedule,” Grybowski said in an interview at a dock on Block Island. “And we are in-line with our budget.”

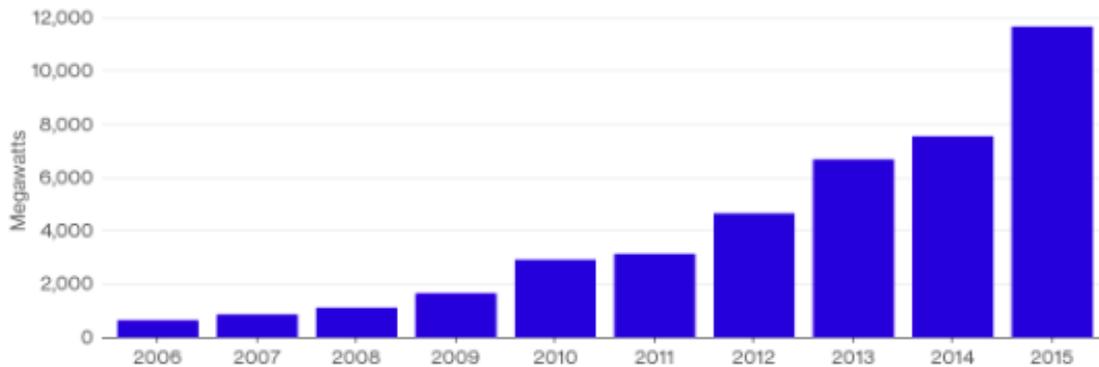
After years of false starts, the offshore wind industry appears to be gaining momentum in the U.S. The federal government has awarded 11 leases to companies to develop projects along the East Coast, off New Jersey, Rhode Island, Massachusetts, Maryland and Virginia. This month, Massachusetts Governor Charlie Baker signed a bill requiring utilities to buy 1,600 megawatts of electricity from offshore wind farms over the next decade. And in the coming weeks, New York State plans to release a long-range plan to develop wind farms off the coast of Long Island.

The Block Island wind project comes after an attempt to build a 468-megawatt off the coast of Cape Cod, Massachusetts, ran aground after years of opposition from fishermen, American Indian groups and the Kennedy family, whose compound of homes overlooks Nantucket Sound. The Cape Wind project had been in the works for 13 years, when National Grid Plc and Northeast Utilities’ NSTAR unit filed to cancel its power-purchase agreements in early 2015, and has made little progress since then.

Europe, meanwhile, remains far ahead. As Deepwater completes its project 3 miles (4.8 kilometers) southeast of Block Island, developers have already installed nearly 10,000 megawatts in Germany, the U.K. and Denmark alone. On Tuesday, the U.K. approved what will be the world’s largest offshore wind farm: an 1,800 megawatt development off the Yorkshire Coast that will cost 6 billion pounds (\$7.8 billion).

Offshore Wind Has Boomed (But Not in U.S.)

All of the nearly 12,000 megawatts built have been in Europe and Asia



Source: Bloomberg New Energy Finance

Bloomberg

Deepwater, meanwhile, is planning a larger project of its own: a 90-megawatt plant at a site 15 miles away that would provide power to Long Island. The company is waiting for the Long Island Power Authority to approve a contract to buy power from the wind farm, 35 miles east of Montauk, New York. Deepwater plans to begin construction on the project in 2018 or 2019, Grybowski said. It could be operational in the 2020s.

The logo for Associated Press, consisting of the letters 'AP' in a bold, black, sans-serif font. A vertical line is positioned to the right of the letters, and a horizontal red bar is located below the 'P'.

Associated Press

1st US offshore wind farm to usher in new era for industry

By [JENNIFER McDERMOTT](#) Aug. 11, 2016 11:20 AM EDT





PROVIDENCE, R.I. (AP) — The nation's first offshore wind farm is set to open off the coast of Rhode Island this fall, ushering in a new era in the U.S. for the industry.

Developers, federal regulators and industry experts say the opening will move the U.S. industry from a theory to reality, paving the way for the construction of many more wind farms that will

eventually provide power for many Americans.

Deepwater Wind is building a five-turbine wind farm off Block Island, Rhode Island to power about 17,000 homes. The project costs about \$300 million, according to the company.

CEO Jeffrey Grybowski said the Block Island wind farm enables larger projects because it proves that wind farms can be built along the nation's coast.

"I look at Block Island as sort of the key to unlocking the code of how to do offshore wind in the U.S.," he said.

This comes as other states have "suddenly woken up" to offshore wind's potential, Grybowski added.

Areas suitable for offshore wind farms have been identified off seven states and the Bureau of Ocean Energy Management has already awarded 11 commercial offshore wind energy leases for sites in the Atlantic Ocean.

Developers have requested commercial wind leases for areas off California and Hawaii. And a lease sale is planned for 81,000 acres off New York for commercial wind energy this year.

"There's a tremendous amount of activity and I think this will be viewed in history as the year that changed everything for the U.S. offshore wind industry," said Kit Kennedy, an energy and transportation expert at the Natural Resources Defense Council.

Offshore wind farms, which benefit from strong winds because of their location, are being proposed near population epicenters that lack the space to build on land.

Abigail Ross Hopper, director of the Bureau of Ocean Energy Management, said climate change is driving interest in offshore wind and she expects to see more wind farms being built in about three to five years.

"We are right on the edge of the cliff and we're about to leap off into the building of many wind farms," she said. "I really think that's true. State and federal policy, and the technology, are all coming together at the same time."

Indeed, several states are pushing ambitious clean energy goals, which include offshore wind. Among them is California, which has a target of generating 50 percent of its power from renewable sources by 2030. Vermont hopes to hit 55 percent by next year and Hawaii has called for 100 percent renewable power by 2045.

Massachusetts decided to ramp up its reliance on renewable and alternative sources of energy under a bill signed into law just this week. The law, in part, requires utilities to solicit long-term contracts with offshore wind farm developers to bring at least 1,600 megawatts of wind energy, enough to power about 240,000 homes, to Massachusetts in the next decade. New York state recently committed to generating half its power from renewable sources by the year 2030. Many other states have set more modest goals.

But offshore wind is not without its growing pains.

Cape Wind would've built the nation's first offshore wind farm, had the 130-turbine project off of Cape Cod, Massachusetts not stalled. The company faced a series of legal challenges brought by project opponents, largely funded by billionaire businessman William Koch.

Last month, a New York utility was set to approve a different Deepwater Wind project, this one a 15-turbine wind farm off eastern Long Island. But the vote was put on hold after officials said they wanted to wait until after the state's offshore wind master plan is released, sometime in the next several weeks.

Deepwater Wind is looking to sell power for approximately 50,000 homes to the Long Island Power Authority. It's considered the first phase in the company's ambitions to eventually build turbines producing 1,000 megawatts of power in the waters between eastern Long Island, Rhode Island and Massachusetts.

Catherine Bowes, a climate and energy expert at the National Wildlife Federation, said it has been hard for some people to think about offshore wind as a real, viable option 7/8—

until now. She sees the Block Island wind farm coming online as a "springboard" for the industry.

"It's a shift from offshore wind being something that might happen in the future, to being a here and now clean energy opportunity," Bowes said.



[Fortune](#)

This Is Where the First U.S. Offshore Wind Turbines Were Just Installed

by Katie Fehrenbacher

@katiefehren

AUGUST 8, 2016, 2:36 PM EDT



It's a small project but a big milestone.

The first wind turbines to be installed off the coasts of the United States were constructed over the past few days about three miles offshore of Block Island, Rhode Island.

While wind farms have been built all over the U.S. on land, the market for building wind farms in U.S. waters has stalled thanks to legal threats, lack of regulatory support, and push back from coastal property owners. At the same time, the “offshore wind” industry has boomed throughout Europe.

The construction milestone is an indicator that offshore wind is finally becoming a reality in the U.S. after many years of fits and starts, and could one day provide substantial amounts of clean energy to Americans.

Last Tuesday, clean energy developer Deepwater Wind began installing the first wind turbine on top of the towers at its Block Island Wind Farm. By Wednesday night, the company had put in the first turbine blade. By Thursday, the first wind turbine had been completed.

Construction on the wind farm, which is using gear from GE GE 0.00% among others, started about a year ago. When completed later this year, the farm is supposed to provide about 30 megawatts of energy, a relatively small amount compared to what natural gas and coal plants, or even large-scale solar farms, can generate.



The first wind turbines of the Block Island Wind Farm, near Rhode Island.

Photo courtesy of DeepWater Wind.

However, what the Block Island Wind Farm lacks in size, it makes up for in timing. Multiple offshore wind projects have been planned for the eastern seaboard for years, but many have stalled.

The poster child for the lagging offshore U.S. wind industry is Cape Wind, a once planned \$2.6 billion project to install wind turbines across 24 square miles off the coast of Nantucket. After years of legal battles, including from residents that didn't want their views spoiled by turbines, the companies that had committed to buy the energy from Cape Wind backed out.

The Block Island Wind Farm is the first of about a dozen planned offshore wind projects in U.S. waters and represents growing support for the clean energy option.

Last week, the Massachusetts legislature passed an energy bill that includes the largest state commitment to offshore wind in the U.S. to date. Under the law, which the state's Governor still needs to sign, utilities would have to buy a combined 1.6 gigawatts of electricity from offshore wind farms in a little over a decade.

Massachusetts is home to waters that have some of the biggest potential for U.S. offshore wind. In addition to the Cape Wind project, DeepWater Wind and Danish energy company Dong Energy hold leases off the state's coast.

Dong Energy is the world's largest offshore wind developer. The company, which is partly owned by the Danish government and Goldman Sachs, went public in June, largely based off of the success of the offshore wind industry in Europe.

In Europe, over 11 gigawatts of energy are being produced by offshore wind farms. There are 84 offshore wind farms either operating or under construction in the seas around 11 countries in the continent. Dong Energy plans to build the world's largest offshore wind farm, called the Hornsea project, off the coast of Yorkshire in Northeast England.



Wind towers being shipped to be installed at the Block Island Wind Farm, off the coast of Rhode Island.

One of the reasons offshore wind hasn't taken off in the U.S. is because the costs of building the first projects, and thus producing the first energy, have been high. The energy from the Block Island Wind Farm has an initial contract of 24.4 cents per kilowatt-hour, which is about 10 cents more than Rhode Island residents currently pay for their electricity, according to Scientific American.

However, prices for offshore wind in Europe have dropped significantly, and they can expect to do so in the U.S., too, as more projects come online. According to the International Renewable Energy Agency, offshore wind could cost on average 12 cents per kilowatt hour by 2025.

Dong Energy recently won a contract to produce offshore wind off the coast of the Netherlands for eight cents per kilowatt hour. At that price, the power is competitive with fossil fuel-based energy.

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ENERGY

Offshore Wind Arrives in U.S. Waters

By the end of this year, the nation's first offshore wind farm should begin generating electricity

By Daniel Cusick, ClimateWire on May 31, 2016



NEW ORLEANS—The first offshore wind farm in the United States is set to begin delivering power to Rhode Island's electricity grid by year's end, a milestone that could help reshape energy markets from New England to South Florida, experts say.

But for U.S. offshore wind power to achieve its full potential, as much as 4 gigawatts of capacity, it will need a major influx of capital and know-how, much of which will come from Europe, where the technology has a 25-year performance record and now accounts for 11 GW of generation capacity on the continent.

Representatives of top U.S. and European wind firms—including executives of Deepwater Wind, the firm building the 30-megawatt Block Island Wind Farm off Rhode Island—told industry peers gathered on the Gulf Coast last week that the industry should act now to establish the

technical, logistical and policy frameworks to build more offshore wind farms in the United States.

Such priorities include setting up domestic supply chains to serve offshore regions and training a skilled workforce to deploy into the offshore wind environment, particularly along the Atlantic coast. That's where developers are snapping up federal leases on the outer continental shelf that could support hundreds of turbines by 2025, officials said. James Bennett, chief of the Office of Renewable Energy Programs for the Bureau of Ocean Energy Management, an Interior Department subagency, said the government has leased 11 tracts off the Northeast and Mid-Atlantic coast where wind speeds are considered superb. More lease sales are in the works for tracts as far south as Florida. Finding and securing the offshore wind sites is only half the battle. Attracting finance and development partners is an equally critical challenge for U.S. firms, even those that have been successful in building and operating major onshore projects in the United States. That's because the offshore environment poses unique challenges in almost every phase of development, from design and engineering to permitting, construction, operations and maintenance.

And while considerable attention has been given to the transfer of knowledge and skilled workers from the offshore oil and gas industry to offshore wind power, experts cautioned that there are key differences between the two sectors, both in terms of how they function and the scale of operation.

For example, an oil and gas field is often served by one or two large offshore rigs whose octopus-like collection systems spread across the seafloor, gathering fuels and pumping them to a centralized point. Offshore wind farms, by contrast, are composed of dozens, or even hundreds, of finely tuned mini-power plants resting atop towers distributed across several square miles of the ocean's surface.

GE LOOKS TO THE OCEAN

Arnold Wilmink, vice president of wind engineering for E.ON North America, a subsidiary of the German conglomerate whose global renewables capacity exceeds 5.2 GW, said there are commonalities between the two sectors. But there is no seamless transfer of oil-and-gas-industry skills to the offshore wind environment. Worker training for a nascent U.S. offshore wind industry is imperative, he said.

In terms of materials and equipment, experts said much of the supply chain will have to be sourced initially from Europe, where developers like Vestas Wind Systems A/S and Siemens AG are already producing the larger nacelles, gearboxes and turbine blades required for offshore wind power. The United States' largest renewable energy firm, General Electric Co., is moving into the marketplace, aided by its recent acquisition of the power systems division of Alstom SA, a French conglomerate.

By virtue of that acquisition, GE is now a partner and supplier of Deepwater Wind's five 6-MW Haliade 150 offshore turbines being installed off Block Island. It has established a temporary manufacturing facility at the Port of Providence for the assembly of turbine components.

Where U.S. developers face the greatest risk of failure is in the regulatory arena, where offshore

energy activities are subject to a unique set of requirements and regulations. “In the U.S., when it comes to permitting, [offshore is] a different ballgame,” Wilmink said. “We’ve got to figure out if the same permitting rules onshore apply to offshore, as well.” Offshore developers, both in Europe and the United States, also must be mindful about driving down costs so offshore wind energy can compete economically against both onshore wind and other competing fuels, including natural gas. Onshore wind energy costs have seen a more than 60 percent drop over the last few years, while offshore wind has remained more expensive due to its more complicated siting, engineering and logistical challenges.

Even so, officials said they believe the cost-benefit equation is shifting in favor of offshore wind, especially as more countries, regions and states seek to replace large carbon-emitting power plants with cleaner baseload energy.

“We need to transform offshore wind from something where society says, ‘Offshore wind is nice, but we cannot afford it,’ into something like, ‘Offshore wind is nice, and we cannot afford not to [do it],’ and we are just about doing that,” said Michael Hannibal, chief executive officer of offshore wind for Siemens Wind Power.

OFFSHORE WIND A ‘GEOGRAPHIC PLAY’

The U.S. market has also been affected by negative public perceptions of offshore wind, most notably in New England, where the long-awaited Cape Wind project in Nantucket Sound became mired in controversy and lawsuits dating to the early 2000s. After years of fits and starts, that project remains on hold, even as Massachusetts lawmakers prepare to require the state to contract for 1.2 GW of offshore wind energy by 2027.

But other developers are lining up to fill the gap, including the Danish firm DONG Energy, which last year secured a federal lease roughly 15 miles south of Martha’s Vineyard, Mass., to build up to 1 GW of offshore wind capacity that would be sold into the Massachusetts market.

Danielle Lane, business support director for DONG, said the Massachusetts site, known the Bay State Wind project, represents a unique opportunity for the utility to enter the U.S. market with a high level of certainty that the economics will pan out. “It’s fair to say the Northeast of the U.S. has some of the best wind conditions that we’ve found across the globe,” she said, “and that’s why we made the decision to make this our first market to build outside of Europe.”

DONG’s U.S. vision extends beyond Massachusetts, too. It recently acquired a second federal lease site off the New Jersey coast that was initially acquired last November by RES Americas Inc. for undisclosed terms. If the 160,000-acre lease area is approved for development, it could support an additional 1 GW of generation capacity that could be delivered into East Coast power markets.

Jeff Grybowski, chief executive officer of Deepwater Wind, said that offshore wind in the United States is currently a “geographic play,” meaning its higher installation and operations costs are offset by production sites’ close proximity to major demand centers along the Eastern Seaboard.

As it stands, Rhode Islanders will pay considerably more for their new offshore wind energy, with an initial contracted price of 24.4 cents per kilowatt-hour for generation delivered from the

Block Island turbines to National Grid USA, the regional utility, via an underground cable.

That's about 10 cents more than Rhode Islanders currently pay for residential power, according to the U.S. Energy Information Administration.

Deepwater Wind officials and wind power proponents have defended the pricing, noting that Block Islanders currently pay between 38 and 58 cents per kWh for electricity produced from diesel generators run on imported fuel. By eliminating the diesel generators, Rhode Island will both clean up its power supply and deliver cheaper power to more than 1,000 ratepayers on the island.

Grybowski added that offshore wind's prospects are also aided by the challenges to delivering large amounts of solar, or even gas-fired power, to a market like New York City, where space is limited and infrastructure upgrades come with high costs. "Delivering utility-scale solar in Manhattan is impossible, on Long Island it's impossible, in southern New England it's impossible," he said. "So building [offshore turbines] in these densely populated, high-energy-cost areas creates a tremendous opportunity."



CNBC

November 6, 2015

Is this the greatest untapped resource in the US?



The bracing waters of the smallest state in the U.S. will soon be home to a sea-change in the country's energy industry: its first offshore wind farm.

The Block Island Wind Farm will be a 30 megawatt, five-turbine facility that will provide the island, situated off the coast of Rhode Island, with most of its power.

According to Deepwater Wind, the project's developer, the wind farm will cut carbon dioxide emissions by 40,000 tons per year, and create more than 300 jobs.

"It will displace the diesel generators that now provide Block Island's electricity," Jeff Grybowski, Deepwater Wind chief executive officer, told CNBC via email.

While offshore wind power may be new to the U.S., in Europe it is an established source of clean energy.

The European Commission describes offshore wind farms as, "an attractive source of renewable energy," while according to the European Wind Energy Association (EWEA), total European offshore capacity in 2014 was eight gigawatts. The EWEA also states that nearly 100 gigawatts of "planned offshore wind farms" are "in the pipeline".

"We can take the lessons we're learning with the Block Island Wind Farm to inform the development of larger projects further offshore, and to further build out a U.S. supply chain," Grybowski said.

"We know offshore wind will be a major player in the nation's energy future," he added.

The National Renewable Energy Laboratory states offshore wind power in the United States has a potential capacity of 4,200 gigawatts, but challenges do remain.

According to the Energy Information Administration, the construction and maintenance of offshore wind facilities is expensive when compared with onshore projects "because of challenges such as transporting equipment and workers to the sites, securing turbines to the seafloor, and operating in fewer periods of fair weather."

For Grybowski, the work being done with the Block Island project is the beginning of "something much bigger."

"We envision that our larger project, the 200 turbine Deepwater ONE wind farm – in the deep ocean waters between Massachusetts and Rhode Island – could be a regional energy solution for New England and New York, generating enough energy to power half a million homes," he said.



U.S. Offshore Wind Power Industry Emerges Off Rhode Island

July 24, 2015

A few miles off the coast of Block Island, a new U.S. industry is emerging from the Atlantic Ocean. That's where Deepwater Wind LLC is installing a massive steel frame, more than 1,500 tons, that sits on the seabed and juts about 70 feet from the water south of Rhode Island. By the end of next year there will be five of these platforms, each supporting a huge turbine, the first offshore wind farm in U.S. waters.

It's been a long time coming. Offshore turbines have been running in Europe for more than two decades, and U.S. developers have been trying to get steel in the water since 2001. Deepwater expects its project to be the first of many to tap the potential for offshore wind energy in the U.S.

"Block Island is very important to jump start the offshore wind industry in the U.S.," said Jeff Grybowski, Deepwater's chief executive officer. Grybowski is leading a group of officials on Monday to tour the site, including Gina Raimondo, the state's Democratic governor. The five foundations will eventually each support 6-megawatt Alstom SA turbines, with 100-meter towers (328 feet) and rotor blades spinning with a diameter comparable to the height of the Washington Monument. Next Steps

The company based in Providence, the state's capital, is developing another wind farm nearby, between Block Island and Martha's Vineyard in Massachusetts, with more than 1 gigawatt of planned capacity. Construction isn't expected to start until the first project is complete.

That much larger scale means "significantly lower costs," Grybowski said. "Starting with a small project is a way to ramp up the industrialization of the sector." While there's plenty of potential energy to harness, offshore wind has been mostly stymied by high costs. Onshore turbines are some of the cheapest sources of electricity, with an average cost of about \$85 a megawatt-hour, according to data compiled by Bloomberg. Coal costs about \$90. Installing equipment at sea is much more difficult, driving up costs to about \$175 a megawatt-hour. Offshore Work There are currently about 4.9 gigawatts of offshore projects that have been proposed in the U.S., according to market research company Navigant Consulting Inc. They will dot the Atlantic seaboard from Maine to the Carolinas. There are some tests off Oregon's Pacific coast and even a few proposals

for the Great Lakes.

The U.S. Energy Department has invested more than \$300 million in offshore wind research, development, and demonstration projects. The U.S. has more than 4,000 gigawatts of potential offshore wind capacity located within 50 miles (80 kilometers) of U.S. coasts, Jose Zayas, office director for the Wind and Water Power Technologies Office at the U.S. Energy Department, said by e-mail. "Offshore wind has the potential to become a major source of clean energy for the coastal and Great Lakes states, which account for more than 75 percent of U.S. electric demand," Zayas said.

It's unclear when, or if, another offshore project will begin construction, said Amy Grace, an analyst with Bloomberg New Energy Finance, because utilities are reluctant to purchase the expensive power unless there's government help. "Nothing is next unless there is some form of federal subsidy," Grace said in an interview.

Scuttled Project Cost is what scuttled Cape Wind, a proposed \$2.6 billion, 468-megawatt project off the coast of Nantucket. It filed its first permit application in 2001 then faced stiff opposition from local residents, who include American Indian groups, fishermen, the Kennedy family and billionaire Bill Koch. National Grid Plc and Northeast Utilities' NSTAR unit had planned to take power from Cape Wind then suffered criticism about the it raising the cost of power bills. In January, after the project missed a deadline to complete financing, the two utilities filed to cancel their contracts. New Jersey rejected in November a proposed Fishermen's Energy LLC offshore wind farm, citing high prices for power from the project. The Block Island project is backed by \$290 million in debt financing from Societe Generale SA and KeyBank NA and about \$70 million from D.E. Shaw & Co. Underwater cables will deliver power to the grid under a 20-year contract with National Grid. **Martha's Vineyard** The developer's next project will be more than 30 times the size of the Block Island project. Deepwater One, with a \$1 billion price tag, will be built between Martha's Vineyard and the project under construction. The Maryland Offshore Wind Energy Act of 2013 requires utilities to get a certain percent of their power from offshore wind farms starting in 2017. It's expected to lead to a 200-megawatt offshore wind farm in waters near the Maryland coast. The project may be complete as soon as 2018 or 2020. "They should have a method for financing with a state subsidy," said Grace at BNEF. "That one has a good chance."



July 19, 2015

Pioneer wind farm 'breaks water' off Rhode Island coast

[USA Today](#)

Plans for offshore wind farms have fallen flat for years in the U.S. But a Rhode Island- based company is about to begin installation of what promises to be the first such venture in the nation.

Deepwater Wind expects delivery this week of foundations that will support five wind turbines off Block Island, a small tourist destination 12 miles from Rhode Island's shore. "This is something we've been working toward for seven years, so this is a pretty significant moment for us," said Jeffrey Grybowski, CEO of the private company building the \$225 million project.

"It's a proverbial steel-in-the-water moment. In our industry, we don't have groundbreakings, we have water breakings." The steel foundations, built at a Louisiana company that specializes in the Gulf of Mexico's offshore oil and gas industry, travelled by barge to the site of the wind energy farm three miles southeast of Block Island.

Deepwater Wind's schedule calls for the five foundations to be anchored to the ocean floor over the next eight weeks, and the turbines, built in Europe by Alstom, to be mounted on them starting in late summer 2016.

If all continues to go well for Deepwater Wind, the 30-megawatt project will begin generating electricity several months later, powering 17,000 homes, including all of those on Block Island, which now relies on expensive diesel fuel to keep its lights on. The project also includes a 20-mile underwater cable that will carry to mainland Rhode Island any power not consumed on Block Island. The pioneer project in the nation's smallest state is large in one respect: at 589 feet above sea level, the turbines will be among the tallest in the world. Otherwise, it is tiny compared to onshore wind farms, some of which number hundreds of turbines.

But if successful, Deepwater Wind may demonstrate that offshore wind can provide another valuable energy option in the U.S., as it has for years in Europe and Asia, where 8,760 MW of offshore wind power had been installed as of 2014.

"We've been struggling in the U.S. to deploy the first offshore wind project for some time now,

and clearly our industry needs a win,” Grybowski said at Deepwater Wind’s offices in Providence. “We think this will open up much larger opportunities.”

In fact, Deepwater Wind is already looking ahead to bigger projects, having won the rights to develop a wind energy farm in federal waters off the Rhode Island coast. The Block Island project is in waters under Rhode Island’s jurisdiction. The larger project off Rhode Island would cover 260 square miles of ocean, and include as many as 250 wind turbines with a total capacity of more than 1,000 MW. That’s enough generation to power a half-million homes in Rhode Island, Massachusetts and New York’s Long Island. “Wind can be one of the principal new power sources in the coming decade, in the Northeast in particular,” Grybowski said. “I think that’s where it begins because we have a confluence of two really unique situations: really strong wind resources and a huge population clustered along the coast from Washington to Boston.”

In fact, the Global Wind Energy Council says offshore wind could meet U.S. energy demand four times over. While the East Coast is littered with failed or struggling offshore wind energy projects, like Cape Wind, the controversial undertaking off Massachusetts’ Cape Cod, Grybowski said new attempts will stand a better chance as costs come down and states learn from Rhode Island’s experience. “The key is to find a location that has the fewest conflicts and makes the most sense,” he said, acknowledging that Deepwater Wind faced some opposition in Rhode Island, including businesses that sued unsuccessfully to stop the project. “This location has a lot of support.”

Still, a potential complication for additional offshore wind projects is the expiration last year of a federal tax credit for production from wind turbines, an incentive that the Block Island project qualified for while it was still available. Some members of Congress are attempting to revive the tax break this year, but approval is far from certain. “I think we’ll see more wind energy built, including offshore, with or without tax credits,” he said. “But the question is how much gets built and how quickly does it get built without tax credits.”



First offshore wind company in NY to open office in Amagansett

: Dec 06, 2017

[Link](#)

AMAGANSETT -

Deepwater Wind will become the first offshore wind company with offices in New York when it opens its Amagansett office.

Deepwater Wind has the nation's only offshore windfarm, 14 miles off Montauk Point.

Tonight, Deepwater Wind will host an open house at its new office on Montauk Highway near IGA supermarket.

Deepwater Wind's 'South Fork Wind Farm' is over 30 miles east of Montauk and is set to begin operations in 2022.

Wind Farm Cable Would Come Ashore In Wainscott; Company Would Fund Fisheries And Scenic Improvements

Dec 5, 2017



Clint Plummer presents Deepwater's plans at Tuesday's East Hampton Town Board work session.
MICHAEL WRIGHT

[By Michael Wright](#)

Deepwater Wind has told the East Hampton Town Board that it has identified Beach Lane in Wainscott as the preferable place for the cable from the 15-turbine wind farm planned southeast of Montauk to come ashore and connect to the South Fork power grid.

The site would allow the cable to run beneath 10 feet of hard pan, protected from erosion and far below sands that shift drastically with storms, a company representative told the board on Tuesday at Town Hall.

It would also provide the shortest on-land route, beneath lightly traveled local roads, to the PSEG substation near Buell Lane in East Hampton Village, and would not require major disruptions of traffic on Montauk Highway while the power cable is buried.

Along with paying the town for the use of part of the road right-of-ways between Beach Lane and the PSEG substation near Buell Lane, the company will also pay to bury the electrical utility lines along all of Beach Lane and along a particularly scenic stretch of Wainscott Main Street. Additionally, the company is pledging to give the East Hampton Town Trustees \$600,000, in two dedicated funds, for improving fisheries habitat and other environmental improvements on Town Trustees-controlled wetlands and bay bottoms.

“We’ve been hearing a lot about what’s important in the community,” Clint Plummer, Deepwater’s vice president for development, told the Town Board at the work session. “We’ve pledged that we not only leave things better than we found them but that we leave the community better off. We’ve heard the fishing community should be helped. So the package we put forward today is intended to respond to all those points.”

Tuesday’s presentation to the Town Board was the first of an informational push the company is holding as it prepares to file its applications for permission to construct the wind farm. The company’s technical staff will attend a meeting of the East Hampton Town Trustees on Monday, December 11, to discuss some more details of the findings of environmental surveys and the construction process of the turbines and running the power cable to shore.

Mr. Plummer said the Rhode Island-based company will stage its maintenance and operations crews and equipment for the South Fork Wind Farm, as the project is dubbed, in Montauk for the duration of the 25-year anticipated life of the turbines, and will make an effort to hire as many people from the local community as possible to fill those and other positions. The Block Island Wind Farm, which is just five turbines, has a full-time staff of six people, he said.

Deepwater has signed a contract with the Long Island Power Authority to supply 90 megawatts of power from the wind farm for 20 years, starting in 2022. The turbines would provide approximately enough power to supply 50,000 homes on the South Fork, Deepwater has claimed, and help LIPA and PSEG reduce their reliance on fuel-fired power plants.

The company is still in the process of gathering data about the environment around the sites where the turbines would be anchored to the bottom and along the path the cable will follow through the sea floor toward the Wainscott shoreline, in anticipation of filing its official applications with various state and federal agencies early next year.

The company has said the review of the applications is expected to take two years and construction of the turbines another two years.

On Tuesday, Mr. Plummer said the company decided the Beach Lane site was the best place to bring the cable ashore because of the short over-land route to the PSEG substation. Once ashore, the cable would be buried under Beach Lane, Wainscott Main Street, Wainscott Stone Road and Hedges Lane to the Long Island Rail Road tracks in Wainscott, where it would run east to

connect to the substation.

At least one lane of traffic would be open on all the roads during the construction and no work would be done between Memorial Day and Labor Day. When the work was done, Deepwater would pay to repave all the roads under which the cable was buried, according to Tuesday's presentation.

The company will also be picking up the tab to bury the overhead utility lines along Beach Lane and the stretch of Wainscott Main Street running between Sayre's Path and Five Rod Highway. The area, which provides sweeping views across farm fields and Wainscott Pond, has been designated a scenic area of statewide significance. Burying the lines in the area has been a goal of Wainscott residents in the past and could cost upward of \$1 million.

Bringing the cable ashore will not disturb the beach itself, the company has said, because the cable will be drawn through a narrow tunnel drilled horizontally from a site in the Beach Lane parking area, through the hard substrate beneath the beach to a point some 2,000 feet offshore where it will connect with the cable running from the turbines. The cables are about 6 inches in diameter.

Deepwater had been considering five possible sites for landing the cable. In its initial presentation of its plans it had offered only two sites for consideration, both in Amagansett and both requiring that the cable be run through the bottom of Gardiners Bay. After objections from fishermen were backed up by town officials, the company turned to looking at three oceanfront sites—the other two in Napeague.

Deepwater Wind Opens Local Office, Will Present Ocean Survey Findings To Trustees

POST A COMMENT



UPDATED Nov 30, 2017 12:13 PM

By Michael Wright

Offshore wind farm company Deepwater Wind will open a new office in Amagansett that will be the base of operations for its development of the planned South Fork Wind Farm.

The company will also be sending representatives to the East Hampton Town Trustees board meeting on Monday, December 11, to discuss the findings of environmental surveys thus far.

Deepwater, which constructed the first offshore wind farm in the United States off Block Island, will open its new office at 524 Montauk Highway on Wednesday, December 6, hosting an open house that evening from 6 to 8 p.m.

"We're proud to be the first offshore wind developer to establish an office in New York State," said Deepwater Wind CEO Jeffrey Grybowski. "Our new East Hampton office will be a great home for our Long Island team. While we've been active in East Hampton for many years, this new office will allow us to work even closer with local residents and become part of the South Fork's business community."

Deepwater Wind is a Rhode Island-based company that has leased a large area of ocean floor between Block Island and Martha's Vineyard from the federal Bureau of Ocean Energy Management that the company says has room for more than 200 turbines.

Deepwater has proposed building 15 wind turbines, each some 600 feet tall, in the ocean about 30 miles southeast of Montauk. Last year the company signed a contract worth more than \$1 billion with the Long Island Power Authority for the purchase of the 90 megawatts of energy generated by the turbines for the next 20 years. Deepwater has said constructing the turbines will cost more than \$700 million.

As proposed, the wind farm would connect to a PSEG substation in East Hampton via a 50-mile undersea cable that will come ashore somewhere in East Hampton. The original proposal called for the cables to come through Gardiners Bay and ashore in Amagansett, but criticism from baymen and the Town Trustees has spurred a new look at three oceanfront landing sites instead.

Deepwater reps will present an update on the progress of their environmental surveys in the region where the turbines are proposed to be built and along the cable route at the Town Trustees meeting on December 11 at 6 p.m.

The company has been battling pushback against the proposal from commercial fishermen who worry that the two-year construction process near prime fishing grounds, the noise of the turbines once they are operating and electromagnetic pulses from the undersea cable will impact traditional fish migrations through the area.



Shelter Island Reporter

Suffolk Closeup: A boat ride into the future

by Karl Grossman

10/28/17



“On a clear day, you can see the future,” is the heading of a full-page Citibank ad that’s been running in major magazines featuring a color photo of the first offshore wind farm in the United States.

Two weeks ago I visited this facility, which is 37 miles east of Shelter Island off Block Island. The trip was organized by its builder, Deepwater Wind, and Renewable Energy Long Island, a group that has long urged the utilization of the wind that blows off our shores.

The use of offshore wind is especially important for the East Coast of the U.S. with its big cities and well-populated stretches between them, which is problematic for siting on-land wind turbines.

The five-turbine Block Island Wind Farm is proposed to be followed by a 15-turbine South Fork Wind Farm — also constructed by Deepwater Wind — 30 miles southeast of Montauk. The Town of East Hampton is already planning to have 100 percent of its electricity coming from this offshore wind source and solar energy by 2020.

It's got a good shot of meeting its goal area and achieving, as East Hampton intends, 100 percent renewable energy in just three short years.

It took an hour on the boat to travel to where the five turbines stood, their 240-foot long blades revolving slowly, silently, gracefully.

"Awesome!" exclaimed one passenger on the boatload of local officials and environmentalists.

"I'm struck by their silence and certainly those blades have a really elegant appearance," said Suffolk County Legislator Bridget Fleming (D-Noyac) whose district includes Shelter Island.

"It's very impressive," said Joseph O'Byrne, office manager of Sylvester Manor.

He added that the Manor is now raising money to "rebuild our own windmill, and here is the newest version." "Beautiful," declared another onlooker.

Indeed, the wind turbines are beautiful. And, I daresay, if they could be reduced in size and were able to fit into the Museum of Modern Art, they would have an honored place.

"The U.S. needs more renewable energy, a problem felt on Block Island, Rhode Island, where residents paid some of the highest electricity prices in the country while burning a million gallons of diesel fuel each year," says the Citibank ad.

"Citi provided long-term financing to help Deepwater Wind build the first offshore wind farm in the U.S. — part of Citi's \$100 billion commitment to finance sustainable energy projects. The Block Island Wind Farm can help lower electric bills by up to 40 percent and reduce carbon emissions by 40,000 tons a year, ushering in a new era of American renewables."

The Block Island Wind Farm is providing all the island's energy needs and sending much of the electricity on to mainland Rhode Island.

Each turbine generates six megawatts of electricity, significantly more than on-land wind turbines that have to be trucked to where they are placed, going on highways, fitting under bridges, limiting their size.

Offshore wind turbines are assembled in coastal areas and barged out to be placed at sea so they can be larger and harvest more electricity.

Europeans have been constructing offshore wind farms for decades. There are thousands of turbines in the waters off the United Kingdom, the Netherlands, Belgium, Germany, Denmark, and on the other side of the planet, China is building them. At long last, the U.S. is doing it.

New York State has identified more than 1 million acres of offshore waters south of Long Island as possible wind energy areas, according to a report issued by the state earlier this month.

The sites present, it said, the “fewest conflicts with ocean users, natural resources, infrastructure and wildlife, and the greatest potential for the cost-effective development of offshore wind energy to meet the state’s goals.”

The New York State Energy and Research Development Authority is the key state agency and emphasizes, “Offshore wind turbines will be located far offshore and will not be noticeable from the shoreline” — an objection raised in earlier efforts to develop offshore wind both off Long Island and Martha’s Vineyard.

A technological achievement of Rhode Island-based Deepwater Wind was figuring out how wind turbines can be placed in deep water — thus its name — and avoid these concerns.

As the boat neared Montauk on its return, Gordian Raacke, executive director of Renewable Energy Long Island, said: “We just saw the future of energy right off our shores.”

GREATER LONG ISLAND



Suffolk Closeup: About the Deepwater Wind farm planned for the South Shore

by Karl Grossman |

I took a trip recently to an offshore wind farm, a sample of what soon may be — way out to sea and beyond sight — off the coast of Babylon, Islip and Brookhaven towns.

You might have seen the full-page ad that's been running the last several weeks in major magazines featuring a color photo of the first offshore wind farm in the United States — east of Long Island — with this heading: On a clear day, you can see the future.

Two weeks ago I visited this wind farm, which is off Block Island.

The trip was organized by Deepwater Wind, its builder, and Renewable Energy Long Island, a group that has long urged the utilization of the wind that blows off Long Island's shores.

The day wasn't clear — it was hazy — but it was clear upon seeing the country's first offshore wind farm that it is a part of our energy future.

The use of offshore wind is especially important for the East Coast with its big cities and well-populated stretches between them, which is problematic for on-land wind turbines.

Close to home, there's a 15-turbine South Fork Wind Farm proposed for 30 miles southeast of Montauk, which would also be constructed by Deepwater Wind. East Hampton Town is already planning to have 100 percent of its electricity coming from this offshore wind source and solar energy by 2020.

And earlier this month, New York State identified more than one million acres of water off the South Shore for possible wind energy areas.

According to a report issued by the New York State Energy and Research Development Authority, the sites present the “fewest conflicts with ocean users, natural resources, infrastructure and wildlife, and the greatest potential for the cost-effective development of offshore wind energy to meet the state's goals.”

“Offshore wind turbines will be located far offshore and will not be noticeable from the shoreline,” emphasized the report.

This was an objection raised in earlier efforts to develop offshore wind off Jones Beach and also Martha's Vineyard. A technological goal (and now, achievement) of the Rhode Island-based Deepwater Wind was to figure out how wind turbines can be placed in deep water — thus its name Deepwater Wind — and avoid these concerns.

[Click here](#) to get a clear look at the proposed areas in the Atlantic south, sitting due south of Babylon, Islip and Brookhaven towns, that NYSERDA is eyeing for possible placement of wind farms.

Scroll down and click on the bulleted line titled “View large, individual maps of the Area for Consideration and Indicative Wind Energy Areas (PDF).”

The first map that comes up, marked “East,” denotes the portion of ocean off the South Shore that is being considered for wind farms — indeed far out to sea and out of sight from land.

Between harvesting the winds offshore and the sunlight that shines plentifully upon Long Island — all the area could achieve, as East Hampton intends in just three short years, a 100 percent renewable energy goal.

I'm more a lover of the beauty and grandeur of nature than most things that people make — with exceptions like most sailboats and jet planes, certain sports cars, great architecture and, of course — very much so — great art.

It took an hour on the boat to travel where the five turbines of the Block Island Wind Farm stood — their 240-foot long blades revolving slowly, silently, gracefully.

“Awesome!” exclaimed one passenger on the boatload of local officials and environmentalists. “Impressive,” said another.

“I'm struck by their silence and certainly those blades have a really elegant appearance,” commented Suffolk County Legislator Bridget Fleming.

“It's very impressive,” said Joseph OByrne of Sylvester Manor Educational Farm on Shelter Island. Mr. OByrne, an Orient resident, added that centuries-old Sylvester Manor is now raising money to “rebuild our own windmill — and here is the newest version.”

“Beautiful,” said another onlooker.

Indeed, the wind turbines were beautiful.

And, I daresay, if they could be reduced in size and were able to fit into the Museum of Modern Art, they would have an honored place.

“The U.S. needs more renewable energy, a problem felt on Block Island, R.I., where residents paid some of the highest electricity prices in the country while burning a million gallons of diesel fuel each year,” the Citibank ad says. “Citi provided long-term financing to help Deepwater Wind build the first offshore wind farm in the U.S. — part of Citi's \$100 billion commitment to finance sustainable energy projects. The Block Island Wind Farm can help lower electric bills by up to 40 percent and reduce carbon emissions by 40,000 tons a year, ushering in a new era of American renewables.”

The Block Island Wind Farm is now providing all the island's energy needs and sending much of the electricity on to mainland Rhode Island.

Each turbine generates six megawatts of electricity — significantly more electricity than on-land wind turbines, which have to be trucked to where they are placed, going on highways and fitting under bridges. This limits their size. Offshore wind turbines are assembled in coastal areas and barged out to be placed at sea — so they can be larger and harvest more electricity.

Europeans have been constructing offshore wind farms for decades. There are thousands of turbines in the waters off the United Kingdom, Holland, Belgium, Germany, Denmark — and on the other side of the planet, China is building them as well.

The U.S. is now joining in.

As the boat neared Montauk on its return, Gordian Raacke, executive director of Renewable Energy Long Island, said, “We just saw the future of energy right off our shores.”

THE EAST HAMPTON STAR

SHINES FOR ALL

Boat Ride to View Block Island Wind Farm

Deepwater hosts officials as questions linger over a second offshore site

By [Christopher Walsh](#) | October 5, 2017 - 4:24pm



Bryan Wilson and Clint Plummer of Deepwater Wind detailed the Block Island Wind Farm to South Fork residents on Monday.

Christopher Walsh

Seventy residents of the South Fork, some of them elected officials and others hoping to be, sailed from Montauk to the Block Island Wind Farm Monday for an up-close look at the nation's first offshore wind-energy installation. On Block Island, officials of Deepwater Wind, the Rhode Island company that built the five-turbine wind farm and plans to construct the larger South Fork Wind Farm in federal waters approximately 36 miles from Montauk, described and answered questions about both of the projects.

Renewable Energy Long Island, a nonprofit advocacy organization, hosted the excursion in collaboration with Deepwater Wind.

Three miles from the island, in waters 75 to 90 feet deep, each turbine stands some 600 feet high when the blade is vertical. On Monday, the blades, 240 feet long, spun slowly and silently on three of the turbines; the others, according to Deepwater officials, were inactive while maintenance was being performed. Each foundation, rising 70 feet out of the water, weighs more than 1,500 tons.

The 30-megawatt Block Island Wind Farm began operation in December. It produces, according to Clint Plummer, Deepwater Wind's vice president of development, about 10 times the island's electrical needs in a given year. "This project brings power ashore, plugs in and delivers directly to the grid here in Block Island, and includes a separate line going from Block Island back to the mainland," he said, detailing the "export" cable that transmits electricity from the wind farm to a substation on the island and a separate, "sea-to-shore" cable, owned by National Grid, that delivers electricity from there to the mainland. If the wind farm produces less than the island's needs, the bi-directional sea-to-shore cable can draw power from the mainland, he said.

The installation's five turbines effectively replaced five diesel generators upon which the island had relied for electricity, said Bryan Wilson, the Block Island Wind Farm's manager. Those generators burned around one million gallons of fuel per year, he said. Residents, said Mr. Wilson, who has lived on the island year round since 1985, were subject to "severe fluctuations in our cost of electricity." That was especially problematic, he said, because, like the SouthFork, "we're a seasonal community with a lot of folks that make their money on tourism."

The sea-to-shore cable, he said, "offers us the stability of being tied into the mainland grid that we didn't have before. As people are fond of saying now, our clocks don't run slow or too fast. Before, we would have to replace appliances every three to four years because the voltage was so 'dirty' out here."

The group stood in the parking lot of Fred Benson Town Beach, above the buried concrete vaults where the cables, which are buried four to six feet below the sea bottom and underground to the substation, make landfall. Situating that junction at what is a very crowded location in the summer "was a concern for locals," but "everything is armored," Mr. Wilson said, detailing the poured-concrete blocks that house the infrastructure. Construction occurred in the winter months. The town was "adequately compensated" for the use of this area. "People were happy to see it," he said, "because they knew it was leading ultimately to this project," the wind farm.

The Rhode Island Coastal Resource Management Council required Deepwater Wind to conduct postinstallation surveys, Mr. Wilson said, including of the electromagnetic field emanating from the transmission cables, which fishermen on the South Fork fear could disrupt marine habitat or migration patterns. When the cables are buried to their target depth of four to six feet, the electromagnetic field is minimal, he said, dropping off significantly beyond three feet from the cable. Heat emanating from the cable also dissipates beyond a level of concern, Mr. Wilson said.

Anecdotal evidence indicates no harm to the island's lobster fishery during or after construction, Mr. Wilson said, though fishermen were displaced, and compensated, during construction.

The South Fork Wind Farm, for which Deepwater Wind plans to submit permit applications early next year, remains controversial. Commercial fishermen are generally opposed to it, particularly the initial plan to run the transmission cable through Napeague and Gardiner's Bay. (Deepwater officials have said that they are exploring a southern, oceanside route in response to those concerns.) Republican candidates for East Hampton Town Board and the town trustees have also taken a position against the project, although Jim Grimes, a Republican trustee seeking re-election, offered qualified support, along with lingering concerns, on Monday.

"This is what we've been doing for years — we've engaged with the fishing community," Mr. Wilson said to Julie Evans, also running for trustee on the Republican ticket, as the gathering stood at the Southeast Light, the island's iconic lighthouse, the Mohegan Bluffs of the south shore offering a clear view of the wind farm's five turbines. "It is understandable that there's opposition to the introduction of this new technology into traditionally open-water areas," he said. "Part of the discussion is to make sure that the impacts are mitigated as much as possible, if there are indeed impacts."

Wind turbines can be positioned so that there is no impact on commercial or recreational fishing, Mr. Wilson said. Exactly how to accomplish that was a likely topic at last night's meeting of the trustees' harbor management committee, to which fishermen were invited.



Deepwater Hires Two Locals



By Rick Murphy

Deepwater Wind has added two local women to its development team. The announcement was made last week, although one of the hires, Julia Prince, has been affiliated with the company for several months. Deepwater is the parent company of South Fork Wind Farm, which has contracted to build a wind farm off the coast of Montauk.

Jennifer Garvey has been named development manager, Long Island. She previously held the position of associate director and cofounder of the New York State Center for Clean Water Technology at Stony Brook University. Prior to that she was deputy chief of staff for Southampton Town under former Supervisor Anna Throne-Holst.

Julia Prince has been named Montauk manager and fisheries liaison. She is a former East Hampton Town Councilwoman. Although her appointment was made public earlier this week, she has been unofficially representing Deepwater for some times at public meetings and events.

Deepwater promised the local fishing community a liaison to represent their concerns about the wind generators after widespread concern that the fishing industry would suffer damage—perhaps irreparable—from the placement of the wind generators, the noise they emit, and the cable that will carry the electricity to shore.

In her role, Prince will lead community relations in Montauk and fisheries outreach with Long Island's commercial and

recreational fishing communities. Prince, of Montauk, has deep roots in the community, having previously owned and operated several successful local small businesses, including a concierge company and La Bodega restaurant in Montauk. In addition, Prince sits on the board of the Montauk Beach Property Owners Association.

Prince attended Hunter College in Manhattan where she earned a degree in economics.

Garvey, a native of Hampton Bays, earned a master's degree in public relations from Syracuse University and a bachelor's degree in business administration from SUNY Geneseo.

"We're so pleased that Jen and Julia have joined our team," said Deepwater Wind CEO Jeffrey Grybowski. "They've both lived and worked on the South Fork for years and are well-respected members of their communities. Their valuable local insight, deep roots in the community, and considerable expertise will help guide our work to bring offshore wind energy to Long Island."

The permitting for Deepwater Wind's 90-megawatt South Fork Wind Farm is a multi-year process that requires approvals from more than 20 local, state, and federal entities. Scheduled to begin operations in 2022, the project's 15 turbines will be located "over the horizon," more than 30 miles east of Montauk where they will not be visible from Long Island beaches.

East Hampton Patch

2 Familiar East End Faces Join Deepwater Wind Farm Team

With operations slated to begin in 2022, project's 15 turbines will be located more than 30 miles east of Montauk, Deepwater Wind says.

By [Lisa Finn \(Patch Staff\)](#) - Updated September 8, 2017



EAST HAMPTON, NY — Two familiar East End faces have recently joined the Deepwater Wind team as it gears up planning of its wind farm, to be sited 30 miles off the coast of Montauk.

The Long Island Power Authority's board of trustees voted unanimously in January to approve the wind farm.

Jennifer Garvey has been named Development Manager, Long Island, responsible for Deepwater Wind's local government relations and stakeholder engagement efforts for the South Fork Wind Farm.

Garvey has extensive experience in environmental policy, grassroots communication, coalition building and legislative affairs. She joins Deepwater Wind after serving as associate director and co-founder of the New York State Center for Clean Water Technology at Stony Brook University. Garvey also served as deputy chief of staff for Southampton Town, Deepwater Wind said.

Garvey, of Hampton Bays, earned a master's degree in public relations from Syracuse University and a bachelor's degree in business administration from SUNY Geneseo.

Julia Prince has been named Montauk Manager and Fisheries Liaison, where she is slated to helm community relations in Montauk and fisheries outreach with Long Island's commercial and recreational fishing communities, a release said.

Prince served on the East Hampton town board from 2008 to 2012, where she served as liaison to the East Hampton Airport, town highway department, code enforcement, and the planning department.

Prince, of Montauk, previously owned and operated several local small businesses, including a concierge company and La Bodega restaurant in Montauk; Prince also serves on the board of the Montauk Beach Property Owners Association.

Prince attended Hunter College in Manhattan where she earned a degree in economics.

"We're so pleased that Jen and Julia have joined our team," said Deepwater Wind CEO Jeffrey Grybowski. "They've both lived and worked on the South Fork for years and are well-respected members of their communities. Their valuable local insight, deep roots in the community and considerable expertise will help guide our work to bring offshore wind energy to Long Island."

The permitting for Deepwater Wind's 90-megawatt South Fork Wind Farm is a multi-year process that requires approvals from more than 20 local, state and federal entities. Scheduled to begin operations in 2022, the project's 15 turbines will not be visible from Long Island beaches, according to Deepwater Wind.

While environmental advocates have lauded the wind farm, fishermen have protested and said its development could threaten their business.

The Montauk Sun

Montauk's Favorite Publication

September 2017

[The Montauk Sun](#)

Block Island Goes "Off The Grid"

by Debbie Tuma



While Montauk residents are still researching the prospect of building wind turbines at sea, their Block Island neighbor officially went off the grid on May 1, getting all its electricity from five huge wind turbines located about three miles off their Southeast Lighthouse, in the ocean waters. The Block Island Wind Farm is the first offshore wind farm in the country.



Sailing over to Block Island this August aboard the Viking Superstar, passengers could see these 600-foot steel wind turbines glistening in the sun. Each turbine has three blades, each measuring 240-feet long, or about the size of a football field! Depending on the wind speed, they turn fast, or barely turn at all.



Bill McKernan and Bryan Wilson

The Viking Starship is an easy way to get to Block Island, being 120 feet of solid steel, and getting there is about an hour and 15 minutes, from Montauk Harbor. You can sit on the lower or upper deck, you can bring your bike or dog, and there is even a galley with breakfast or lunch, drinks, and coffee. Steering the ship was Captain Jay Burke, a Montauk native, on the ride over, and Captain Paul Forsberg, founder and owner of the Viking Fleet, on the way back.

Sailing into the New Harbor, we passed numerous sailboats, and yachts docked at Champlin's Marina. We picked up our PT Cruiser at

Continued on Next Page →

nearby Aldo's Car and Bike Rentals in the boat basin, where owners Leo Leoni, Sr. and Leo Leoni, Jr. have this family business, along with their Aldo's Car and Moped Rental business in the heart of town, next to Aldo's Italian Restaurant, Bakery and Ice Cream shop. Their grandfather, Aldo, came to Block Island from Italy and started the family business, which is an institution on the island.

We headed over to the Oar Restaurant to meet Bryan Wilson, who lives on the island and manages the Block Island Wind Farm. He works for Deepwater Wind, which developed the wind farm on this island, and is also looking into creating one 30 miles off Montauk, to power the Township of East Hampton.

Wilson explained that in 2007, the State of Rhode Island started looking into wind energy for the Town of New Shoreham, or Block Island, with its wide open wind resources. With its year-round population of 1,000 people, that soars to 20,000 during the summer months, islanders and tourists would sometimes experience brownouts, outages, and internet problems.

"We needed additional infrastructure and generation capacity to handle the influx of tourism for three months a year," he said. "Also, Block Island was importing diesel fuel by tractor trailer trucks on a ferry, and burning a million gallons a year. It was very expensive, and was a dirty way to produce power. It was also risky, in case of potential fuel spills in this pristine area."

Wilson said with the new wind farm, Block Island residents were also able to lower their electric bills by

40 percent, "from historical highs of 65 cents per kilowatt hour."

Kathy Szabo, Executive Director of the Block Island Chamber of Commerce, said later that, "Our power rates were the highest in the country, with everything being shipped in."

Bryan Wilson said an added benefit to the residents is that they now have access to fiber optics for better internet service, which also benefits the fire, rescue, medical center, school, police, and town hall, and also the tourists.

Bill McKernan, a longtime summer resident of Montauk, who moved 10 years ago to Block Island, is Chairman of their Broadband Committee to bring high-speed internet

Continued on Page 46



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Block Island...

Continued from Page 19

service to the island.

"With this new wind farm, we are now connected to the mainland by a 30-mile cable with fiber-optics, to enable us to have the internet service we need," he said. This cable is buried deep beneath the sea.

Wilson said yet another benefit is that only 10 percent of the wind energy created by the five turbines is used to power Block Island. The other 90 percent of the energy goes back in the mainland Rhode Island grid. The wind farm supplies enough energy to power 17,000 homes. He added that another benefit was the creation of over 300 new jobs.

"The beauty of offshore wind is that you have very clean air, or wind flow, and lots of it," Wilson explained. "In the Northeast Corridor, we have world-class wind resources."

He said since one-third of all the electricity in the United States is utilized from Boston to New York City, Deepwater Wind is looking into providing energy to LI and later Massachusetts to meet that demand with offshore wind energy. Although it took 10 years to research and get the permits in place for the Block Island project, perhaps it will be a model for these other areas, to speed up the process.

We decided to see these wind turbines for ourselves, so my friend and I hopped aboard the High-Speed Block Island Ferry, run by Interstate Navigation out of Galilee, Rhode Island. They take about 100 passengers each day around 4 pm, on an hour tour out about 3 miles to get up close to the 5 wind turbines, which are each a half mile apart.

"I'm proud that we're the first town in the country to go off the grid with an offshore wind farm," said Cindy Lasser, who narrates the boat tour. "I want to stick with it and see how it works. It's so much fun to see the delight on the faces of the people who take my tours."

The wind whipped in our faces as we proceeded out to the turbines. Since the still air was not moving too much, when we slowed down, neither were the blades on the wind turbines, but they were still great to photograph. We met people on the boat from all over the country, who had come here to see for themselves.

Emma Dowd, 18, of West Hartford, Connecticut, was here on a family excursion. "We've all been coming to Block Island for a long time, and we've been hearing about this wind farm, and now we're excited to see it," she said.

Leah Brams, 19, an environmental science major at

Dartmouth University, said she thinks the turbines "are a great idea."

I think it's cool to see a community like this give back to the planet," she said. "I have friends on the Cape and they're still looking into it."

Carole Galli, of Hilton Head Island, said, "This is fabulous, and I believe in it. This small island is taking the first big step, and it is to be commended."

After the boat tour, on this perfect sunny day, we checked into the charming Old Harbor Inn, located at 231 Water Street, and overlooking the scenic harbor, ferries, and restaurants. If any inn exemplifies the romantic Victorian era, this is it, with its three-story, gingerbread architecture, old-fashioned porches and waterfront balconies, and lovely print wallpaper throughout. It is owned and operated by our friends Gabrielle and Kai Costanza, who are brother and sister, and live in Montauk. They also own two Kai Kai Sandals stores in Montauk, one in Key West, and one in the Inn at Old Harbor.

We loved our stay at the Inn, which also offers morning breakfast and afternoon wine and cheese in their "common room." Visit www.innatoldharbor.com

With so many connections to Montauk, this is the next place that Deepwater Wind is looking at building another wind farm, called the South Fork Wind Farm. With so much new growth on the South Fork, LIPA has concluded that there's only a finite amount of power that can flow, and that something needs to be done by 2022. Of all the types of projects available, the wind turbines would be the most cost effective.

The South Fork Wind Farm would consist of 16 wind turbines and supply power to 50,000 homes in the Town of East Hampton. Deepwater Wind is still in the research and talking stage, with local residents, who have been attending informational meetings. Former East Hampton Town Councilwoman Julia Prince, of Montauk, is a liaison between Deepwater Wind and the local people, espe-

Continued on Next Page →

cially the fishermen, who have concerns about possible impacts on the marine environment. Unlike Block Island, which has mostly recreational fishermen, Montauk is a large-scale commercial and charter fishing capital.

"I have been meeting with Montauk's commercial and recreational fishermen on a one-to one basis since May, and also going around the docks to talk with them," she said. The fishermen have concerns about the proposed location of the turbines around Cox's Ledge, a major fishing ground, and also the construction of the turbines, so they don't adversely impact the ocean floor, the fish, and habitat. Also, after dealing with so many state and federal fishing regulations over the years, they are afraid of more regulations.

But Clint Plummer, Vice-President of Development for Deepwater Wind, said after doing extensive surveys and environmental impact statements, there was no adverse impact the on fish stocks in Block Island, and that his company would build the turbines in a responsible way. He said after getting feedback from the Montauk fishermen and Town Trustees about the location of the cable, which was to be brought in on the bay side, his company is now looking into bringing it in on the ocean side instead.

"We intend to listen to the fishermen and the community, and we are still in the public process, collecting

data," he said.

Bryan Wilson said the Block Island turbines have created an artificial reef where more fish have gathered, which has been good for their recreational fishermen.

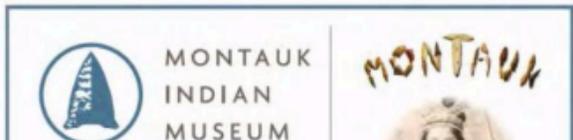
Plummer said this wind farm is in the preliminary stages, and the final details still need to be ironed out.

"We need federal, state and local permits, and we expect it will take another two years until they get approved," he said. "I wouldn't expect the fishing community to support us yet. But we respect them and want to listen to them, so we hope it is the same for them."

East Hampton Town Supervisor Larry Cantwell said he supports renewable energy and he thinks the South Fork Wind Farm could help meet the needs of his town,

"But we still have a long way to go, and lots of information to share."

While the initial project at Block Island appears to be a win win, there are many concerns for the effects on marine life and the fishing industry. We will surely be reporting on this in the future.



THE EAST HAMPTON STAR



Placating the Fleet

Deepwater cites lack of harm off Block Island

By Christopher Walsh | August 24, 2017 - 3:21pm

[The East Hampton Star](#)

The Harry Miller, a 50-foot vessel that recently conducted surveys of the sea floor both in Gardiner's Bay and off the south shore of the Town of East Hampton, illustrates Deepwater Wind's engagement with stakeholders as the Rhode Island company plans the construction of a 15-turbine, 90-megawatt wind farm approximately 30 miles off Montauk.

That was the message from Clint Plummer, Deepwater Wind's vice president of development, who spoke with The Star hours before he and other company representatives met with members of the East Hampton Town Trustees and residents, including commercial fishermen, at the trustees' harbor management committee meeting on Aug. 16.

Initial plans called for the wind farm's transmission cable to make landfall at Gardiner's Bay. Fishermen have loudly complained that plowing a trench in the sea bottom to lay the cable poses multiple, unacceptable risks to their livelihood. As a consequence, Mr. Plummer told the gathering at the trustees' office in the Lamb Building in Amagansett, a southern route is under serious consideration.

Planning and construction of the South Fork Wind Farm, Mr. Plummer told the gathering, should parallel that of the Block Island Wind Farm, a five-turbine installation built by Deepwater Wind that has been operating since December. Placement of the turbines in that installation, the nation's first offshore wind farm, were moved eastward from their initial location in response to concerns from fishermen, he said.

Meanwhile, a range of ongoing postconstruction surveys around the Block Island Wind Farm suggest no detrimental impact to commercial or recreational fishing, or to marine life itself, said Drew Carey of Inspire Environmental, a consulting group.

While data are still being collected, Mr. Carey said it was notable that, despite the degree of construction "and the fact that we were trawling literally past the foundations" as they were driven into the sea floor, "we were catching live fish, and we were catching basically the same number of fish that they caught at other times," within the range of year-to-year variation.

Preliminary survey results also show no negative impact on lobster abundance in the vicinity of the wind farm, he said. "Oddly enough, the capture was actually higher during construction than

prior to construction,” though that would parallel 2016 as a whole, which he said was a good year for Rhode Island’s lobstermen.

Deepwater Wind representatives including Aileen Kenney, its vice president of permitting and environmental affairs, emphasized the exhaustive studies the company is conducting, the comprehensive, multivolume applications it must submit to as many as 26 regulatory agencies beginning next year, and the community input they said is both welcome and essential to the project’s ultimate success.

If all goes according to plan, permits will be submitted beginning in the first quarter of 2018, permit approvals would happen in 2021, and construction would commence the same year. The wind farm would be operational late in 2022. Studies that began in 2011, Ms. Kenney said, would continue at least through 2024.

Commercial fishermen in attendance remained skeptical, however, disputing Deepwater Wind officials’ contention that there has been no evidence of fish kills resulting from driving the turbine foundations into the sea floor. They also criticized the National Marine Fisheries Service, which certified Deepwater Wind staffers tasked with observing protected species, calling the agency generally not credible.

Julia Prince, a Montauk resident who is serving as a liaison between Deepwater Wind and the fishing industry on the former’s behalf, pleaded with the latter group to conduct an open dialogue. “There are people out there saying, ‘Don’t speak to Julia,’ so I’ve had a lot of no phone calls back, no emails back. I’m trying to engage people.”

Rick Drew, a deputy clerk of the trustees who leads the harbor management committee, emphasized the importance of the proposed wind farm to the town. There are 53 commercially viable fish species in the area Deepwater Wind has leased from the federal government, he said. “We’re so blessed,” he said of “the community that’s fished here for 300 years,” calling the sea’s bounty “a very sacred component of who we are.” He implored Deepwater Wind officials to locate and build only on bottomland that will not disrupt marine habitat, nurseries, or foraging. “Do spots like that exist within the lease area?” he asked. “Can you guys identify those spots? Is that feasible?”

The goal, Mr. Carey said, is to map the sea floor in detail sufficient to find those areas “with absolute minimal impact on the habitat. How well we can balance that has yet to be determined. That’s the challenge right now.”

The Deepwater Wind representatives pledged to return in the fall with further data from postconstruction surveys of the Block Island Wind Farm and more mapping and analysis of the waters and sea floor where the South Fork Wind Farm is to be situated.

Mr. Drew reiterated the hope that a southern route for the transmission cable would be secured. “Please do whatever you can . . . and share your progress,” he said.

“We are evaluating all the options,” Mr. Plummer said. “This is something that we want to be part of the process” so that the wind farm’s final design is one “the entire community can feel was a consensus decision.”

The East Hampton Press

EDITORIALS

An Island Embraces Its Windmills

It's interesting that the nation's first offshore wind farm, a line of five tall turbines spinning rather pleasantly just three miles off Block Island's south shore, has already become a tourist attraction.

Completed last year and capable of producing 30 megawatts of electricity, the Block Island Wind Farm now supplies all of the island's power, having replaced diesel generators that needed fuel shipped in tanker trucks by ferry. The new turbines transmit power to some 17,000 homes on the New England mainland as well.

Sportfishing is said to have improved near the white windmills' steel-and-concrete foundations. No fewer than six wind farm tours—whether by charter fishing boat, inflatable or high-speed ferry—offer close-up looks at the humongous contraptions, with blades that reach 670 feet and foundations that extend as far beneath the ocean surface as 90 feet.

A visitors' guide to Block Island proudly features one turbine on its cover, with the heading "2017: The Year of the Wind Farm." The free brochure calls the wind farm the "island's top site to see in 2017."

When it comes to pass, perhaps as soon as 2022, the South Fork Wind Farm will be set 30 miles off the coast of Montauk, beyond the horizon, and so perhaps not a prime destination for Long Island-originating boats bearing passengers on tours. It will, however, be the largest wind farm in the United States, with 15 turbines supplying 90 megawatts to Eastern Long Island and helping East Hampton Town reach its goal of deriving 100 percent of its energy from renewable sources.

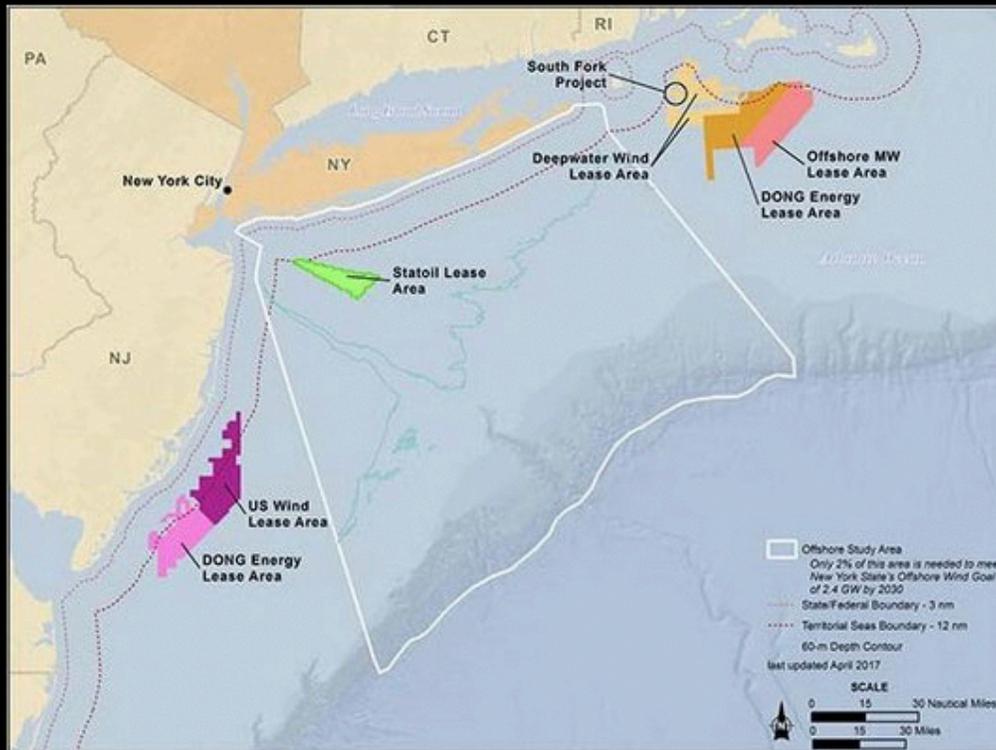
Block Island has embraced its wind farm in a way that suggests a similar perspective for the South Fork's.

News

Publication: The Southampton Press

Aug 22, 2017 1:35 PM

State, Fishermen Map Out Possible Conflicts At Sea To Help Clear Way For Future Wind Turbines



The areas running along the coastline that the state is considering for offshore wind farm developments in the next 10 years runs through some prime fishing grounds. NYSERDA



Montauk scallop fisherman Chris Scola examines nautical charts with fisheries outreach consultant Stephen Drew, who is working for New York State to help site offshore wind farms in places where they will cause minimal disruption to commercial fishermen. MICHAEL WRIGHT



Montauk commercial fishermen Chris Scola, second from left, Bruce Beckwith and Dave Aripotch discuss the siting of hundreds of offshore wind turbines planned by the state in the waters south of Long Island.
MICHAEL WRIGHT



Fisheries consultant Stephen Drew, left, Montauk fisherman Capt. Dave Aripotch, state wind farm expert Gret Matzat and Bonnie Brady, president of the Long Island Commercial Fishing Association, at Thursday's open house on the state's future offshore wind farm plans. MICHAEL WRIGHT



Maps showed where historic fishing areas are compared with the areas being considered for wind farm development. MICHAEL WRIGHT



Hampton Bays fishermen John Berglin, Michael Baughs and Mark Lofstad discussed fishing pattern with state experts Stephen Drew, left, and Gret Matzat. MICHAEL WRIGHT



New York State Department of Environmental Conservation Chief of Marine Fisheries John Maniscalco, DEC marine biologist Kim McKown and fisherman John Berglin in Hampton Bays. Michael Wright

Commercial fishermen from throughout the South Fork last week pored over nautical charts showing the broad swaths of ocean south of Long Island being considered for future wind energy development by New York State—and saw a lot of the area where they harvest a living.

But the state officials who hosted two open-house discussions with fishermen last week, one at Shinnecock Inlet and the other in Montauk, said that is exactly what they wanted the fishermen to point out to them—so they can work to reduce the impact.

The New York State Energy Research and Development Authority, or NYSERDA, is nearing the end of the research phase of its offshore wind master plan, due to be released next year. The state's experts say they wanted to hear from fishermen which areas are most critical to their

industry, and how the development of offshore wind farms could be coordinated to have the least impact on the fishing industry as possible.

“What we’re trying to understand from the fishermen is where they fish in these areas, how often they fish in what spots, what type of fishing they do in each area, and ... we want to understand how the gear works,” said Greg Matzat, a wind energy expert for the Research and Development Authority. “If we can find areas where there is no fishing, or less fishing, happening, that’s where we want to go. If it makes sense that we would align the turbines along a depth contour, so that fishermen can fish alongside them and don’t have to criss-cross through them, we can do that, too.”

Governor Andrew Cuomo last year set a goal for the state to draw half of its energy supply from renewable sources by the year 2030. A large portion of that is expected to come from offshore wind developments—some 2,400 megawatts from 250 wind turbines, enough to power more than one million homes.

As part of its master plan development, the state is looking at more than 16,000 square miles of ocean, from the full length of Long Island coastline out to the continental shelf, to find the conditions right for potential development sites for offshore wind farms.

But a variety of factors, from shipping lanes to Federal Aviation Administration clearance concerns to water depth, have cleaved the areas that could possibly be developed down to a handful of chunks of sea floor between 12 miles and 25 miles offshore.

One of the focus areas extends from the eastern end of Fire Island to Montauk Point, as close as 12 miles to shore.

Within those areas lie gargantuan stocks of valuable sea scallops, roaming schools of squid miles across, and scuttling migrations of monkfish, all of which stock seafood shops and restaurants up and down the East Coast and sustain a multimillion-dollar industry—and thousands of jobs.

“Scallopers, they fish everywhere,” said John Maniscalco, the chief of marine fisheries for the State Department of Environmental Conservation, at an open house on the commercial docks in Hampton Bays on Wednesday, August 16. “Ideally, we would not develop prime fishing zones. Obviously, there’s somebody fishing almost everywhere at some point, so it’s a matter of how much intensity, are there other places to catch the same species, and can we arrange the turbines in such a way that you’ll be able to fish among them.”

Mr. Maniscalco nodded to the broad nautical charts laid out on tables—he and his state colleagues on one side, a group of commercial fishermen on the other—that depicted the areas under consideration, overlaid with shipping lanes and other obstructions to development, and with circles drawn by fishermen to mark the areas they fish the most.

A large oval, drawn in orange marker, encompassed nearly the entire area south of Long Island to the undersea mouth of the Hudson River, with “Scallops” written in the middle of it.

“We fish here, and all through here, and over here,” fisherman Mark Lofstad said, running his finger along the chart’s lines, depicting bottom contours from south of Shinnecock Inlet west toward New Jersey, showing where he takes his boat, Oceanfresh, to drag for squid. “If you have to be 15 miles offshore, you would be in the middle of the day boat scallopers.”

The fishermen—about a dozen offered input last week in Hampton Bays, but just three in Montauk the next day—voiced concerns about the windmills being an obstruction while they fished, about fishing areas being closed during construction, and about the faint electronic hum

emanating from electrical cables that can drive fish away from key fishing areas.

The state officials said that fishermen would be compensated for any fishing area closures during construction—which would likely not start until 2024 at the earliest—and that once the windmills were in place there would be no clearance requirement for boats fishing next to them. “You can get as close to them as you are comfortable with,” Mr. Maniscalco said.

The effects of electromagnetic impulses on migrating fish remains a large unknown, thanks to a lack of detailed study, state officials and fishermen agreed.

“We’ve never had this kind of thing, so we don’t know what’s going to happen,” Hampton Bays scalloper Michael Baughs said in response to the claim by the state officials that what studies have been done were either inconclusive or showed that the pulses had no effect on fish.

“I think the main concern is that fishermen don’t want to lose any fishing ground,” said Bruce Beckwith, a Montauk draggerman. “For me, I would rather not see anything in the ocean—just leave it the way it is. I have eight grandsons. They might want to go fishing someday. I don’t want to see them be shut out.”

Mr. Lofstad suggested that the best course of action would be to place the windmills in long lines, perhaps single-file, running east-west just outside the 12-mile nautical boundary of U.S. territorial seas. That would put them offshore of the best fishing for squid, and inshore of the best scalloping.

While there may be some conflicts still, “we all have to work together here,” the fisherman said with a resigned shrug.

Mr. Matzat told the Shinnecock fishermen that NYSERDA hopes to be nearing the point of

decision about what areas it will pinpoint for wind farm development. The state would then have to seek to have leases created for those areas by the federal Bureau of Ocean Energy Management, and then put the leases up for bidding by offshore wind development companies.

Two such leases have already been awarded for wind farm development to serve New York—including the bottomlands targeted for the 12 to 15 planned turbines of the Deepwater Wind wind farm, slated off Montauk, which will send 90 megawatts of power to the South Fork.

“Everything is up in the air still, but in the next month or so we’re hoping to wrap stuff up,” Mr. Matzat said. “We have literally 20 studies that are finishing right now, so the more input we can get now, the better.

“We’re very purposefully trying not to predetermine anything until we have all the data and information, so don’t just look at one data set and say, ‘Oh, let’s go here,’” he added. “If we take these maps and do all the overlays with all the environmental data, and the information we get here, and everything else ... hopefully, we come up with some little gaps,” he said, where turbines could be placed with minimal disruption.

Mr. Beckwith said he also worries about the hazards to boats of turbines spaced just a mile apart, which will force more ocean traffic into smaller areas.

“When you’re offshore in the wintertime and it’s cold and windy and icy, it’s one more thing you have to deal with,” he said.

Others saw some glimmers of hope in the state’s plan—which most said they saw as an

inevitable future, given the governor's forceful embrace of offshore wind as a key to the state's future energy supply.

"It seems a lot bigger than we are," said John Berglin, a Hampton Bays fisherman. "I guess there will be a lot of job opportunities from it, so I don't think it's a terrible thing.

"And if you are fighting too hard against it, I think you are like Don Quixote. Literally. Tilting at windmills."

THE STAR

Nonsense in the Wind

By Editorial | July 27, 2017 - 12:08pm

[The East Hampton Star](#)

Breitbart News, the arch-right website, helped set the tone some years ago when it posted a story headlined “Ten Reasons Why People Who Support Wind Farms Are Deluded, Criminal or Insane.” Brietbart is not alone; opposition to wind power is common among many on the right, who cite turbines’ wildlife-killing blades as a top concern, though at the same time they back gutting the Endangered Species Act and dismantling the Environmental Protection Agency. We noticed an op-ed this week in Newsday from a right-wing think tank decrying turbines’ blinking red lights at night and “harmful” noise levels. Would that were all we had to worry about as the planet rapidly warms.

Locally, it is difficult to figure out just which constituency here in East Hampton some Republican leaders and the party’s candidates for town board and trustee are trying to woo in their opposition to an offshore turbine project that would help meet Long Island’s growing power needs. Their statements against it may appeal to a certain pro-fossil fuel far-right audience, but at a time when the risks from anthropogenic climate change are becoming clearer, especially on the highly vulnerable East End, they risk being out of step with the times.

There is an extraordinary amount of negative nonsense out there about wind power. Opponents, many backed by the oil industry, say it is expensive or harmful or that it can change the climate itself. In fact, as far as electricity production goes, wind is competitively priced and has near-zero carbon emissions. Looking to the future, it is obvious that as fossil fuel supplies are used up, there will be more call for alternatives. Wind must be part of a shift to renewable energy if greenhouse gases are going to be controlled.

Certainly, concerns among inshore and offshore fishing interests about the placement of wind turbines and the delivery cables to land are legitimate and must be weighed. Deepwater Wind has proposed its offshore project in what is traditionally a productive fishing area; that may have to change. Also, the company may have to drop its original plan for an underwater transmission

line in Gardiner's Bay. Any flaws in its specific proposals, however, should not be allowed to subsume the general notion that reducing global warming will take an "all-of-the-above" approach, including a significant commitment to offshore wind.

THE EAST HAMPTON STAR

SHINES FOR ALL

The East Hampton

Deepwater Now Exploring New Cable Route

Wind farm officials hear fishermen's pleas

By Christopher Walsh | July 20, 2017 - 1:19am

Star

In response to strong opposition from commercial fishermen who fear a disruption of their work and destruction of fish habitat, officials of Deepwater Wind, a Rhode Island company that plans to construct a 15-turbine wind farm approximately 30 miles off Montauk, are exploring an alternative to an initial plan to route the installation's transmission cable through Gardiner's Bay.

At an April meeting of the East Hampton Town Trustees, several fishermen voiced those concerns to Clint Plummer, Deepwater Wind's vice president of development, should the transmission cable be laid to make landfall in Gardiner's Bay.



On July 6, the East Hampton Town Board authorized a license agreement with Deepwater Wind

allowing it to conduct soil sampling and habitat delineations at a town-owned right of way at Napeague Lane in Amagansett.

Mr. Plummer said yesterday that Deepwater Wind's exploration of a southern route for the proposed South Fork Wind Farm's transmission cable underscores the company's effort to solicit feedback from all stakeholders and respond accordingly. "We have taken that guidance very seriously, as we are investigating some potential routes on the south shore," he said. "We're working through where this could go. There are a lot of technical and environmental data we're gathering. In the next few months, we will be able to go public with alternative routes."

Mr. Plummer has emphasized that the development phase of an offshore wind farm is much longer than its construction phase, which he has estimated would be a few months. A rigorous review by federal, state, and local regulatory agencies will require some 20 approvals, he said, as was the case for the Block Island Wind Farm, which Deepwater developed over approximately eight years. That installation, the nation's first offshore wind farm, went online in December.

"Developing a project of this scale is a long process, and we are at the very beginning," he said. "Most people are surprised to learn how many approvals are required, and how in-depth that process is." The company is on track to submit permit applications in the first quarter of 2018, he said. Previous estimates had the South Fork Wind Farm operational in late 2022.

The trustees' harbor management committee has met monthly, Rick Drew, a deputy clerk of the trustees, told his colleagues at their meeting on July 10, with the South Fork Wind Farm a primary topic of its meetings. The next meeting, he said, will happen on Aug. 16 at 6 p.m. at the trustees' office in the Donald Lamb Building in Amagansett. It is to focus on the project's environmental impact, particularly with the laying of the transmission cable and the installation of the turbines' bases on the ocean floor. "It's an interesting opportunity for us to learn more about the project, and we are looking to have more representation from the commercial and recreational fishing community at this meeting," he said.

Mr. Drew said that he has informed Deepwater Wind officials that a "well-presented executive summary of all this research," including comment from all stakeholders, is planned. He estimated an early fall presentation of that summary. "We're really challenging them to deliver a quality proposal," he said of Deepwater Wind.

Diane McNally of the trustees had asked Mr. Drew, at the July 10 meeting, for information on the Block Island Wind Farm's operation. Mr. Plummer said yesterday that the installation is meeting performance expectations. It is projected to produce approximately 125,000 megawatt

hours per year, he said, and “we’re on track to meet that number over the course of the next year.”

He described feedback from residents of East Hampton, which set a goal of meeting 100 percent of its energy needs from renewable sources by 2020, as “overwhelmingly positive” to date. “We talk with folks who are very excited that East Hampton is leading the way to becoming one of the first 100-percent renewable energy communities in the country, and to learn how offshore wind becomes a part of that renewable energy solution.”



City & State

CAN NEW YORK BECOME A PIONEER IN OFFSHORE WIND?

BY BRAD SYLVESTER | JUL 19, 2017 |        1



Many countries have been transitioning to more environmentally friendly sources of energy, but the U.S. continues to rely heavily on fossil fuels with only 10 percent of the total energy used coming from renewable sources. If there is hope that the U.S. will further develop its clean energy production capacity, New York could lead the way.

The Long Island Power Authority contracted with Deepwater Wind earlier this year to build the largest offshore wind farm in the country. The first part of the project, known as the South Fork wind farm, plans to put 15 wind turbines capable of producing around 90 megawatts of clean, renewable energy.

The best part? It will be located 30 miles off the coast of Montauk, far enough that it won't be visible from Long Island's beaches. Although, they may be able to be seen from the west coast

of Martha's Vineyard in Massachusetts. The South Fork wind farm could be the first installment of Deepwater One, an offshore wind farm planned to one day have as many as 200 turbines. The plan received [support from a bipartisan coalition of Long Island politicians](#) as well as Gov. Andrew Cuomo.

In a statement, Cuomo said, "This project will not only provide a new, reliable source of clean energy, but will also create high-paying jobs, continue our efforts to combat climate change and help preserve our environment for current and future generations of New Yorkers."

Assemblyman Steve Englebright of Long Island, a longtime advocate of renewable energy, was one of the politicians who supported the initiative. "Wind power is not viewed as something that is speculative," he said. "It's now clearly a very viable mode of generating electricity. It's been tested and proven. It's now ready for a large-scale implementation."

The South Fork wind farm could begin construction as early as 2019 and could be operational as early as 2022.



Dan's Papers

At 6 a.m. on Monday, May 1, a switch was thrown in a powerhouse on Block Island, the diesel fuel generators that have powered that island for the last 50 years were turned off and power from a group of six offshore windmills surged into the system to provide the electricity for the residents, all 1,000 of them, that live on the island.

From the perspective of Montauk, just 20 miles away, someone might have seen the lights of the island flicker for a moment when the changeover occurred. Afterwards, the lights were as bright as they had been before.

Block Island became the first community in the country to be powered entirely by energy generated from a wind farm. Not a single gram of fossil fuel exhaust is being thrown up into the atmosphere to contribute to climate change.

Montauk Looks to Block Island as Wind Power Takes Hold



WIND TURBINES WILL SOON POWER MONTAUK, PHOTO: ISTOCK.COM
MAY 17, 2017 BY DAN RATTINER

And yes, you can see the steel windmills from the shore. Block Islanders and the 15,000 visitors who come to the island every day in-season can look out at them just three miles out to sea. They are proud of this.

“POWERED BY WIND!” was the headline in *The Block Island Times* this past week. Photos showed the view from land of the six windmills at dawn, the construction work, and the ribbon cutting.

“Second Warden Norris Pike said ‘the switch from diesel to offshore wind power is a monumental moment in our history, not only for Block Island, but the country as well. Between the wind farm and our purchase of the Block Island Power Company, we have set the stage for cutting edge technologies that will help us reduce our carbon footprint even more in the years to come.’”

The company that built this six-windmill project, Deepwater Wind, has now gotten its **early approval** to build a 15-windmill wind farm 30 miles from Montauk, well over the horizon and out of sight. If this comes to fruition, in five years time 50,000 homes on the South Fork of Long Island, just about every home here, will be powered by wind.

Last week, citing environmental issues, the East Hampton Town Trustees, along with a local fisherman’s group, announced their opposition to this project.

Editorial OPINION

Long Island's energy future may be blowin' in the wind

Updated May 6, 2017 6:05 AM

By The Editorial Board



Deepwater Wind, located off Block Island and about 14 miles east of Montauk Point, is seen on Wednesday, Nov. 23, 2016. Photo Credit: AllIslandAerial / Kevin P. Coughlin

THE BOTTOM LINE

- The state is becoming a national leader in renewable energy, and Long Island is the centerpiece of that effort. Yet it was quite a torturous, if not ironic, path that got us to this point.

Diesel generators that date to 1925 were shut down on Block Island last week as the nation's first offshore wind plant, a few miles off its coast, began providing full power to the island's electrical grid.

Earlier this year, final agreement was reached between the Long Island Power Authority and that same wind plant's developer, Deepwater Wind, to provide power to Long Island's South Fork. The electricity from 15 turbines at the wind farm, about 30 miles off Montauk, could begin flowing in six years.

And it's not just sea breezes that could be a power source. LIPA is expected next month to choose among bidders offering renewable generation to replace small aging gas plants known as peakers. One of the bidders, Invenergy, offers an ambitious proposal to build wind and solar farms in rural Ohio, West Virginia, Pennsylvania and North Carolina, and to send us that power via the existing grid and a new underwater cable. Land is so expensive and solar arrays need so much space that it's unlikely there will be any new large-scale solar projects built on the Island.

Gov. Andrew M. Cuomo greatly expanded this market for renewable energy by setting a goal that the state will draw 50 percent of its power from green sources by 2030, and Long Island will be the centerpiece of that effort. New York stands with California, Oregon, Vermont and Hawaii as states with the highest standards for renewable energy.

Yet it was quite a torturous, if not ironic, path that got us to this point.

The failed Shoreham nuclear plant resulted in the state taking control from a private utility, the Long Island Lighting Co., 29 years ago. Instead of profits, however, it was politics that ruled local decision-making until superstorm Sandy exposed inadequacies and new state legislation overhauled LIPA's governing structure in 2013. Often those politics were designed to appease local officials, resulting in bad decisions, such as not challenging assessments on overtaxed plants or awarding too-generous community payments in lieu of property taxes. Now that state control can be turned into a benefit if the political decisions support enlightened policy that embraces new technology and moves away from outsized dependence on fossil fuels.

Efficiency now a factor

Statoil, a Norwegian firm that won an astonishingly high-priced federal auction in December to lease 79,000 acres in the Atlantic Ocean 14 miles off Long Beach, is gearing up to face regulatory battles and to build community support it needs to start its own wind project. Statoil

says it could be producing power for this region as soon as 2024. In addition, LIPA might have other choices for wind generation; a German company is getting ready to propose an offshore project south of Bayport.

Long Islanders will still have the same basic concerns about reliability and affordability, which must always be at the center of the conversation. But the moldy focus on how to salvage the oil- and gas-fueled baseload power plants of the last century must evolve. The latest study from LIPA, its long-awaited Integrated Resource Plan, and an independent review of a PSEG Long Island analysis of existing generation, must start a new dialogue.

The resource plan, as well as the PSEG review by the Brattle Group, a consultancy, confirm that Long Island and the nation are consuming less electricity, due in part to more efficient appliances, light bulbs and sustainable design. At the same time, the New York Independent Service Operator, which manages the flow of high-voltage power on the state's grid, has reduced requirements for how much backup power LIPA needs to have at the ready and how much of that must be produced on the Island.

As a result, there is widespread agreement that no additional generation is needed until 2030. The current open bids are to replace aging peakers with renewables and more efficient plants. And when the decision is made in five to seven years about what should be built to meet new needs, it certainly won't be enormous plants using fossil fuels. Even now, 54 percent of LIPA's generation is idle at any given time; the national average is 44 percent.

Another reason for reduced power need is rapidly changing energy markets — from competitively priced renewables to plentiful and low-cost natural gas. The studies conclude that there is no need to rebuild — euphemistically called repowering — the older plants at Port Jefferson and Island Park. The plants are still used, but sparingly, and their value has depreciated. Contracts with owner National Grid on those plants, as well as the workhorse of the system in Northport, expire in 2028 and shouldn't be renewed. The studies also confirmed that there is “no compelling reason” to build a second Caithness plant in Yaphank. LIPA says going forward with repowering and a second Caithness plant would increase customer bills by \$5 billion through 2030.

These findings are going to make some communities on Long Island and their elected officials very displeased because the \$189 million LIPA customers pay for the taxes on these old plants only benefit the jurisdictions in which they are located. But the time for stalling and maneuvering is over. Incredibly, one of the reports that buries the dream of repowering was requested by the State Legislature, hoping it would prove the opposite.

LIPA's tax grievance litigation against Nassau County, and Brookhaven and Huntington towns, should be settled so plans for other uses of the sites of those aging plants can move forward. Port Jefferson, for example, is ideally situated for one of the new and more efficient peaker plants LIPA will need in the near future.

Watch trends, plan ahead

Will the findings of today change? Of course. The key assumption in these studies, that the trend toward reduced consumption will continue, must be closely monitored. If it changes, LIPA will need to have new power sources in place before 2030. The premise that the massive wind project off Long Beach will soon supply bountiful renewable energy could dissolve if state and federal regulatory hurdles mount and if there are construction delays.

Keeping the old standards, the old thinking and the old politics will lead to costly mistakes. Almost half of a LIPA bill, the charges called "power supply," rest on these decisions. Managing them smartly can not only keep our already high cost of electricity in check, but power Long Island into the future.

FORTUNE

Fortune



Deepwater Wind's project near Block Island, R.I. Courtesy of Deepwater Wind

CLEAN ENERGY SPECIAL REPORT

Wind Power Takes to the Seas

Brian Dumaine

Mar 14, 2017

The first U.S. offshore wind project is up and running. Is it a sign of things to come?

It was a brisk Sunday morning in October 2015, and Deepwater Wind CEO Jeffrey Grybowski's cell phone buzzed. His construction manager, who was driving piles 200 feet beneath the floor of the Atlantic Ocean, three miles from Block Island, R.I., said he had to halt work on the company's wind farm because a humpback whale had meandered near the site. Under the Endangered Species Act, it's illegal for humans to "harass"

certain marine mammals, and loudly pounding steel into the ocean floor would certainly qualify.

Worse, from Grybowski's perspective, the law permits driving in piles only during certain months, when the whales aren't migrating to the area. Bad weather was moving in, and if his team didn't finish the project that day, Grybowski would have to wait another six months before the feds would allow him to sink in the final post for the five giant wind turbines that would provide the island's power. That meant millions in losses and a disaster for his small company. Recalls Grybowski: "It was a nail-biting moment. We had no way of knowing when the whale would stop hanging out."

Over the next few hours Grybowski hounded his foreman for information. How far away was the whale? Was it moving at all? Was it drifting closer to the construction site? By midafternoon, he had only a few hours left to finish before time ran out. Grybowski's cell rang again, and he learned that with a magnificent flip of its flukes the humpback had swum away. The crew then sank the last piling, just making the deadline.



Deepwater CEO Jeffery Grybowski in Providence in front of bases for wind turbines. Jamel Toppin — The Forbes Collection/Contour by Getty Images

No one ever said it would be easy to build the first offshore wind farm in America. But in December, Deepwater Wind's Block Island turbines started spinning out electricity. What the company accomplished is much more than replacing the island's dirty, diesel-power plant with clean wind. The project marked the beginning of what many experts and investors are betting is a boom in offshore wind along the northeast coast of the U.S. After decades of false starts, bankrupt projects, and protests—Ted Kennedy once

complained that a proposed wind farm would ruin the view from his Hyannis Port compound—

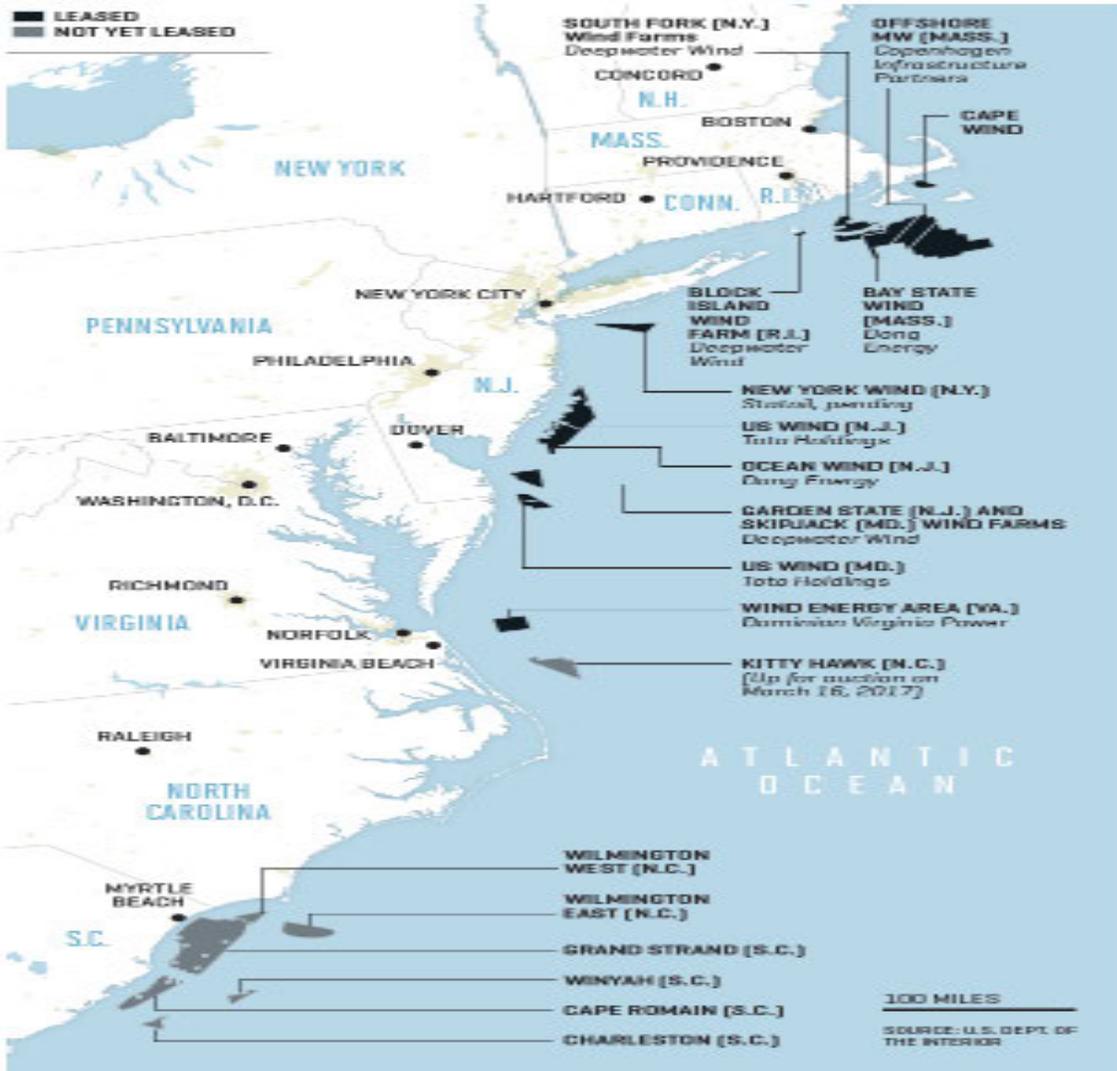
offshore wind is looking practical.

Europe has been building offshore wind since the early 1990s, but American developers couldn't figure out how to make those farms compete with cheap coal and natural gas. In the past few years, however, the turbines have gotten larger and more efficient, and the installation costs have dropped. As a result, the wholesale cost of European offshore wind power has fallen from an average of 20¢ a kilowatt-hour (kwh) to less than 10¢. And the cost curve keeps sloping downward.

For the first time, U.S. investors see a path to profitability. The gold rush has begun. In the U.S., 23 offshore wind projects totaling 16 gigawatts (GW), the equivalent of about 16 nuclear power plants, are on the drawing board. Almost all are located along the northeast coast. Over the past year, Denmark's oil and gas giant Dong Energy bought federal leases off the coasts of Massachusetts and New Jersey. Norway's Statoil won a 33-round auction to secure a 79,000-acre site south of Jones Beach on Long Island for \$42.5 million, far more than the \$16 million generated by all earlier offshore wind auctions combined. Shell has been sniffing around. Wall Street players such

as Citigroup (C, -0.98%), HSBC (HSBC, +0.98%), and, as we'll see, D.E. Shaw are lining up to finance the most promising projects.

ATLANTIC OFFSHORE WIND ENERGY LEASES



Nicolas Rapp

At the same time, state governments are generating favorable winds. Last summer, Massachusetts Gov. Charlie Baker, a Republican, signed a law that requires that state to procure 1.6 GW of offshore wind by 2027. Not to be outdone, New York’s Democratic governor, Andrew Cuomo, committed to develop 2.4 GW of offshore wind as part of his pledge to get 50% of the state’s power from renewables by 2030 (roughly twice the current percentage). As Cuomo tells *Fortune*: “New York will continue to advance the largest offshore wind development in the nation that will bring resilient and reliable power, create jobs, and combat climate change.”

All told, the U.S. Department of Energy projects that offshore wind will produce 86 GW of power by 2050—about 7% of America’s current electricity demand. That’s up from virtually zero today. (Land-based wind now delivers 82 GW in the U.S., vs. just 4 GW 15 years ago.)

U.S. OFFSHORE WIND PROJECTS

New Jersey leads the U.S. with the most offshore wind energy in the planning stage.

NEW JERSEY	4,198 MW
NORTH CAROLINA	3,734
MASSACHUSETTS	2,368
VIRGINIA	2,012
NEW YORK	987
HAWAII	816
RHODE ISLAND	530
MARYLAND	500
DELAWARE	450
OREGON	25
OHIO	18
MAINE	12

SOURCE: NATIONAL RENEWABLE ENERGY LABORATORY

But making offshore wind viable in the U.S. won't be easy. New projects in the U.S. cost roughly twice the national average of 7.5¢ for all sources of electricity. One reason is that America doesn't have the infrastructure and supply chains in place to build offshore wind farms affordably. In addition, the permitting process is complicated and time consuming, and a new administration in Washington has made it clear that coal—and not renewable energy—will be its priority.

Industry backers argue that offshore wind will follow the same steep cost decline of other technologies. The price of land-based wind (without any subsidies) plummeted from 14¢ to 4.7¢ a kilowatt-hour from 2009 to 2016, according to financial advisory and asset management firm Lazard. That's cheaper than the energy from a new natural-gas or coal plant.

Now we're seeing the start of a similar downward trajectory for offshore wind. The DOE estimates that the price of offshore wind will drop by 43% by 2030, which would make it nearly competitive with other new sources of electricity. Irene Rummelhoff, who runs Statoil's offshore wind and other "new energy" businesses, is more optimistic: "Two years ago they said European wind wouldn't be competitive until 2030. We became competitive last November. In the U.S. it can happen extremely quickly too."

Deepwater's small operation off Block Island doesn't prove that wind power is competitive. The island had a small diesel plant that was expensive to run. The wind power replacing it is cheaper than diesel fuel but still more than double the national electricity rate. But wind power can be

competitive in select markets—heavily populated parts of the country where building a new fossil-fuel plant is expensive, if even possible. In other words, along the Northeast Corridor.

That's what Grybowski hopes to prove with his next project: building and operating the South Fork Farm, a 90-megawatt (MW) plant—enough to power 50,000 homes—30 miles off the coast of Montauk, and serving the eastern tip of Long Island. The project, which is slated to come on line as early as 2022, will provide much-needed power when the hedge fund kings and celebrities descend on the Hamptons each summer and thousands of megamansions start drawing outsize loads of power. Grybowski thinks that if he can get it up and running, it might just provide the gust of momentum the industry needs to take off.

By the look of its bright but cramped office suite in downtown Providence, Deepwater Wind might seem like a shoestring operation run by a band of Birkenstock-wearing environmentalists. It's anything but. The company is principally owned by D.E. Shaw, a New York hedge fund and private equity firm, which manages \$40 billion in assets.

And Deepwater's chairman, Bryan Martin, is no tree-hugging idealist. A former partner at J.P. Morgan's private equity unit, he has decades of experience building huge oil and gas projects and, later, solar and onshore wind farms as CEO of D.E. Shaw Renewable Investments, his current position. Believing that offshore wind could be the next big economic win, Martin first invested in then-fledgling Deepwater in 2007 and hired Grybowski, a lawyer and a former chief of staff to a Rhode Island governor; Grybowski moved up to CEO in 2012. Martin saw that Grybowski, an animated, quick-talking executive with an infectious laugh, had the drive to run projects like the Block Island farm, plus the political experience to navigate the complexities of federal and state policies. (The company is private and will not release financial data.)

Martin and Grybowski saw a huge opportunity to replace aging fossil-fuel plants in New York and New England. Some of the coal, oil, and nuclear facilities, at 50 to 60 years old, have exceeded their expected lives. New York State is closing the Indian Point nuclear operation, which supplies the equivalent of 25% of New York City's power. Long Island is scheduled to shut three or four of its fossil-fuel plants over the next few years.



D.E. Shaw's Martin (in a blue shirt with raised fist), Grybowski (center), Rhode Island Gov. Gina Raimondo (with thumb up), and others celebrate an early construction milestone at Deepwater's wind farm in 2015. Brian Snyder — Reuters

But replacing them with new fossil-fuel or nuclear plants, in blue states populated with citizens concerned about clean air and climate change, would be costly and controversial. When the local utility simply tried to install larger power poles on the leafy streets of East Hampton a few years ago, the public outcry was so great that the power company had to back off. Says Martin: “We have limited cost-effective options to replace aging power plants in New York and New England. Offshore wind will be one of the lowest-cost sources of new power.”

Geography is also working in the favor of offshore power. Finding enough land to build giant solar and wind farms in the heavily populated east, where land values are high, poses a problem. (The town of East Hampton spent \$7 million just to buy the rights to prevent 20 acres from being developed.) Why not build wind farms in upstate New York, where land is cheap and plentiful? As it turns out, the state doesn't have the grid capacity to move the power from upstate to the population centers in the south, and building miles of new high-voltage power lines would face serious local resistance.

The technology enjoys another advantage in the region: The Atlantic is very shallow— typically 90 feet or less—near the East Coast, making it cost-effective to drive in the pylons that support the turbines. Plus, the wind blows harder and more steadily there than in many other places. Offshore wind tends to peak in the afternoon and early evening; onshore wind blows stronger at night. The biggest demand in summer comes in the

afternoon and evening, when the sun is hottest and people return home from work (and the beach) and turn up their air-conditioning. It's a perfect match.

The result: a surge in interest from developers. When the Long Island Power Authority (LIPA), the agency responsible for supplying power to Long Island, asked for bids for the South Fork Wind Farm, some 20 companies, including ones that wanted to build natural- gas and biofuel plants, vied for the project. Deepwater Wind won the bidding. Under the 20-year contract, Deepwater will provide LIPA with electricity that will likely cost in the vicinity of 17¢ a kilowatt-hour. In addition, the project will help LIPA fulfill its pledge to add more renewable energy to the grid. Says Tom Falcone, the CEO of LIPA: “We hope the South Fork Farm will serve as a gateway project for us. By starting to develop that resource, the next wind farms will cost a lot less.”



To deliver electricity at that price, Grybowski will have to do some scrambling. For one thing, building an offshore wind farm requires special ships and equipment. No such fleet exists in the U.S., and federal law (meant to protect American shipping) prohibits hiring European operations, which have been doing this type of work for years.

Grybowski turned to the fossil-fuel industry. Because of the slump in oil and gas drilling, many service vessels in the Gulf of Mexico are sitting idle. For the Block Island project, Grybowski hired Gulf Island Fabrication of Louisiana to build the foundation and another Louisiana company to help install the turbines. "The Gulf ship owners see offshore wind as a big opportunity," says Grybowski. For the South Fork project, the CEO anticipates, he'll be working out of multiple ports, creating hundreds of jobs. Little by little he hopes to achieve the scale of the operations in Europe.

Deepwater is already making progress in its quest to cut costs. The company says the \$740 million South Fork farm will be 30% less expensive per unit of energy than the Block Island project. Prices of turbines are falling, and Deepwater thinks it can obtain permits more quickly this time.

Offshore turbines boast advantages compared with their land-based brethren. They are much larger because there is simply more wind to harness over the ocean. Typically, a landlocked turbine generates 2 to 3 MWs. The ones Deepwater Wind uses for the Block Island wind farm were made by [GE \(GE, +0.74%\)](#) and crank out 6 MWs. One project in Europe has deployed 8 MW turbines, the largest in the world, made by Vestas. Each of the three blades is 265 feet long—bigger than the wingspan of a 787 Dreamliner. From waterline to the tip of the blade, the turbines stretch 722 feet, more than twice as high as the Statue of Liberty and its base combined.

These behemoths are getting smarter and more efficient. Because offshore wind turbines are bigger, taller, and in windier areas, they are 50% efficient, meaning that over time they convert half the theoretical wind power into electricity. That efficiency level is significantly higher than land-based ones. The giant turbines can rotate 360 degrees, and the blades can tilt to capture the best angle of the wind.

Some experts think that efficiency number could reach 55%, and manufacturers like GE are applying advanced software to do the job. Says Markus Rieck, managing director of commercial operation, sales, and marketing for GE's offshore wind business: "Every 1% improvement in efficiency generates a lot of cash for our customers." In one example, turbines could be designed to communicate with one another. Those nearest the wind might be blocking the airstream for those in the rear. GE's system, still in development, could use algorithms to adjust the angle of the turbines so that the maximum amount of power is produced. The software can also be used to predict when the turbines are likely to break or need maintenance to avoid sending a worker up—sometimes in horrendous weather—to check what's wrong. GE currently uses similar software for its jet engines. Next up: drones with cameras that could fly up to the turbines to detect material failure, rust, or a missing bolt.

Such technological progress will need to overcome the changed political climate in Washington. The new administration is unabashedly hostile to renewable energy, and soon after Trump's Inauguration the White House took down all mention of climate change on its website. Still, there are good political and economic reasons to support offshore wind. This fledgling industry is just the kind of heavy steel and construction project that the new President envisions for his infrastructure program. And offshore could bring a dollop of sorely needed revenue to the

Treasury. The DOE estimates that annual lease payments for offshore wind projects could total \$440 million annually through 2050.

Certainly, the Republican-controlled Congress could decline to renew the subsidies that wind power now enjoys. The production tax credit, which is slated to phase out by 2020, helped the onshore wind industry become competitive and create 100,000 jobs, most of

them in red states. Onshore wind doesn't need the tax credit any longer, but why not extend it for offshore wind to help create more high-paying jobs more quickly? Even if Congress doesn't come through, New York State is looking to provide some financial incentives for offshore wind. Says John Rhodes, president of NYSERDA, the agency that oversees the state's energy policy: "We want developers to come here with the certainty that they can build the wind farms and sell the power."

Some help from Washington would be nice, but Grybowski and his investors aren't counting on it. They believe they can build out this industry, if they have to, without much in the way of government subsidies. If they can deal with the endless technical challenges, and even the occasional pesky humpback whale, they just may have the gumption to go it on their own.

A version of this article appears in the March 15, 2017 issue of Fortune with the headline "Wind on the Water."

East Hampton Patch

East Hampton Patch

Photos: Crowd Turns Out With Questions About Wind Power Project Off Montauk

The crowd represented a cross section of East Hampton Town, and all came with questions about the wind power project.

By [Lisa Finn \(Patch Staff\)](#) - March 10, 2017 2:33 pm ET



EAST HAMPTON, NY — Residents brought their questions Thursday afternoon about an offshore wind power project 30 miles southeast of Montauk that has some in the community divided.

The East Hampton Historical Society's Clinton Academy on Main Street hosted an open house with Deepwater Wind of Providence, RI, where the public could meet the company's team, including CEO Jeffrey Grybowski, and ask questions about the project.

Deepwater has entered into a 20-year power purchase agreement to sell the energy generated to LIPA, with operation scheduled to begin in 2022; a 50-mile cable under the ocean will connect the 12 to 15 planned turbines to the mainland, representatives explained.

Changes on the East End have long been subject to scrutiny and criticism, with residents raising concerns in recent years about aircraft noise, land preservation and development — as well as the impacts of wind turbines in local waters.

The wind power project has sparked debate on both sides of the issue, judging by the wall-to-wall crowd that attended.

Attendees comprised a cross-section of East Hampton: Local fishermen had questions about the possible effects on their catch. Montauk's Chuck Morici and Bruce Beckwith had questions about the future of cod fishing. Conservationist Larry Penny, family groups, and members of local fire departments, some who are also fishermen, were also well represented.

Also in attendance were East Hampton Town Board members Peter Van Scoyoc and Kathee Burke-Gonzalez, as well as former East Hampton Village Chief Gerard Larsen. Linda James, acting chairperson of the East Hampton Town Energy Sustainability Committee, and liaison to the town board, produced the event.

In January, it was a win for renewable energy as the Long Island Power Authority's board of trustees voted unanimously to approve the nation's largest offshore wind farm just 30 miles southeast of Montauk.

Governor Andrew Cuomo said the project is the first offshore wind farm in New York, and the approval of the South Fork Wind Farm, a 90 megawatt development, is the first step toward developing an area that can host up to 1,000 megawatts of offshore wind power.

The wind farm, which is out of sight from Long Island's beaches, will provide enough electricity to power 50,000 Long Island homes with "clean, renewable energy, and will help meet increasing electricity demand on the South Fork of Long Island," Cuomo said in a release.

The vote came two weeks after Cuomo called on LIPA to approve the wind farm project and announced an commitment to develop up to 2.4 gigawatts of offshore wind by 2030 in his regional State of the State address on Long Island. The 2.4 gigawatt target, enough power generation for 1.25 million homes, is the largest commitment to offshore wind energy in United States history, he said.

"New York leads the nation in pioneering clean energy innovation, and this bold action marks the next step in our unprecedented commitment to offshore wind, as well as our

ambitious long term energy goal of supplying half of all electricity from renewable sources by

2030," Cuomo said.

The project, he said, will also create high-paying jobs, continue an effort to combat climate change, and help to preserve the environment for current and future generations.

The LIPA board approved a contract submitted by Deepwater Wind for the South Fork Wind Farm after a year-long process engaging the private sector for ideas and detailed cost modeling.

Other elements of LIPA's South Fork energy portfolio include transmission enhancements and additional clean energy solutions such as battery storage and consumer electricity demand reduction.

"This is a big day for clean energy in New York and our nation. Governor Cuomo has set a bold vision for a clean energy future, and this project is a significant step toward making that a reality. The South Fork Wind Farm will be the second offshore wind farm in America, and its largest. There is a huge clean energy resource blowing off of our coastline just over the horizon, and it is time to tap into this unlimited resource to power our communities," said Grybowski.

The LIPA board approved a 20-year pay-for-performance power purchase agreement, allowing the utility to only pay for delivered energy without taking construction or operating risk, the release said.

Advancing technology and innovation reduced the project's all-in wind energy price to be competitive with other renewable energy sources, the release explained.

Tom Falcone, LIPA's chief executive officer, spoke about the momentous day: "We are confident this is the first step to developing the tremendous potential of offshore wind off Long Island's coast and meeting Governor Cuomo's Clean Energy Standard. This project is the right size, at the right location and demonstrates how smart energy decisions can reduce cost while providing renewable energy and clean air for all of Long Island."

In addition to the approval for the South Fork Wind Farm, the New York State Energy Research and Development Authority also plans to continue to develop an Offshore Wind Master Plan outlining the state's commitment to developing cost-effective offshore wind resources in federal waters off the coast of New York.

The master plan is slated for release in late 2017 and aims to show how additional New York coastal sites may be developed responsibly, including expected capacity targets and commercial operation dates for each site.

John Rhodes, President and CEO of the New York State Energy Research and Development Authority, expressed his thoughts on the day: “New York is leading the nation in developing offshore wind to provide clean, renewable energy and I applaud

LIPA’s approval of the South Fork Wind Farm. Offshore wind has great potential to help us achieve our ambitious clean energy goals under the Clean Energy Standard and Reforming the Energy Vision as well as the Governor’s 2.4 gigawatt goal, and this project will reduce our carbon footprint and protect the environment for generations to come.”

New York State Senator Kenneth LaValle added, “Wind and other alternative energy sources are critically important components in our overall energy strategy. This project will greatly bolster the East End’s energy reliability in an environmentally compatible manner, help stabilize rates, and create much needed construction jobs in the region.”

New York State Assemblyman Fred W. Thiele, Jr. was also happy about the vote. “Long Island, and particularly the East End, faces unique energy and economic challenges. As one of the few parts of Long Island in which energy demands continue to grow, we face a steadily increasing need for new sources of power. Our existing electricity grid is operating at its limits and, given our population density and our commitment to conservation, building any new energy infrastructure here is difficult.”

LIPA's vote, he said, will broaden its commitment to maintaining a renewable energy portfolio. "Not only will this help the South Fork meet its increasing energy demand, but will do so in an environmentally responsible manner, creating jobs for our state," he said.

And, Suffolk County Executive Steve Bellone added, “By locating the offshore wind farm 30 miles offshore, it will be over the horizon and will not impact views from our beaches. By installing energy storage facilities in Montauk and Wainscott, it will deliver reliable power without the noise and emissions that accompany conventional power plants. And, by providing enough clean energy for 50,000 Long Island homes, it will help to mitigate climate change and establish New York State as a leader in clean energy.”

The vote was a win for environmentalists who celebrated the victory.

Adrienne Esposito, Executive Director, Citizens Campaign for the Environment, was jubilant: “Our transition from fossil fuels to renewables has just taken a giant leap forward with this historic decision. This is a game changer, a legacy that all New Yorkers will be proud of. By tackling climate change head-on, New York is proving to be a global leader.”

And, said Gordian Raacke, Executive Director of Renewable Energy Long Island, “This is a big step for LIPA, a bold step for renewable energy on Long Island, and the beginning of an offshore wind industry in the State of New York and the country. We commend Governor Cuomo and LIPA for showing visionary leadership in the transition to renewable energy and thank all who have advocated for offshore wind energy over the last couple of decades.”

Deepwater To Speak About Wind Farm

Representatives of Deepwater Wind, the company that plans to build 12 to 15 wind turbines in the Atlantic Ocean southeast of Montauk, will hold an open-house information session about the project in East Hampton on Thursday, March 9, from 5:30 to 7:30 p.m.

The event will be held at the Clinton Academy, the East Hampton Historical Society's offices on Main Street in East Hampton Village.

The company will have many of its senior leadership and construction, engineering and environmental staff members on hand to discuss details about the

project's time line, permitting, construction details, environmental issues and, for the first time, the route the power cable linking the wind turbines to the South Fork will follow.

The early proposals for the project call for the company to build as many as 15 turbines, each about 600 feet tall, in the ocean about 30 miles southeast of Montauk and 15 or so miles from Block Island.

The turbines, which the company says could be constructed and ready for operation by 2022, would generate 90 megawatts of power, enough for about 50,000 homes per year. The company

has projected the cost of constructing the turbines at more than \$700 million.

Deepwater signed a contract with LIPA earlier this year in which Long Island's sole electrical utility pledged to purchase power from the turbines for at least 20 years. The power would be dedicated to the South Fork, which is projected to have a more than 150-megawatt deficit of electrical supply by 2030 if efficiencies and major new sources are not brought on-line.

The project has raised some concerns among fishermen about the impact on fishing at the site.



March 7, 2017 12:45 PM

NEWS

DeepWater Wind to host meeting about offshore wind farm



[News 12 Long Island](#)

MONTAUK - DeepWater Wind will be hosting an informational meeting this week about the LIPA-approved wind farm 30 miles off Montauk.

News 12 has reported that the plan calls for a 90-megawatt, 15-turbine wind farm that will cost \$740 million to construct.

In addition to being the largest offshore wind farm in the country, it's also the first one of its kind in New York.

Some environmentalists have applauded the planned facility as the next step in clean energy while fishermen worry about its potential impact on their industry.

The meeting will be held Thursday at East Hampton's Clinton Academy.

27 East

News

Publication: The East Hampton Press

Mar 6, 2017 7:14 PM

Wind Farm Company To Host Open House On Thursday In East Hampton

UPDATED Mar 7, 2017 10:32 AM



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The project has raised some concerns among fishermen that construction and the operation of the turbines could harm fishing in the area where the turbines are to be placed and along the route of the power cable that will bring electricity to the island.

Wind Farm In The Atlantic Could Power The Hamptons

POST A COMMENT



Jan 31, 2017 11:56 AM

By [Michael Wright](#)

[27 East.com Your Connection To The Hamptons](#)

The Long Island Power Authority agreed last week to purchase 20 years worth of electricity for the South Fork, to the tune of more than \$1 billion, from planned offshore wind turbines in the waters off Block Island.

In the contract approved by the LIPA board of directors last week, Long Island's sole electrical provider pledged to purchase electricity from Deepwater Wind, a Rhode Island- based company that will fund and construct the 600-foot-tall turbines. The South Fork Wind Farm, as the company has called the planned project, is expected to become operational in 2022 and would generate enough electricity annually to power about 50,000 homes.

Jeffrey Grybowski, CEO of Deepwater Wind, said the company plans to construct between 12 and 15 turbines in the ocean 30 miles southeast of Montauk, at a projected cost of about \$740 million, connecting them to a LIPA substation in East Hampton Town by a 50-mile cable running beneath the sea floor.

Construction of the turbines will be funded entirely by Deepwater Wind, but over the 20- year life of the LIPA contract the wind farm is expected to deliver more than \$1 billion in electricity to LIPA.

“This is a big day for clean energy in New York and our nation,” Mr. Grybowski said in a statement released by the company following the vote. “There is a huge clean energy resource blowing off of our coastline just over the horizon, and it is time to tap into this unlimited resource to power our communities.”

Late last year Deepwater began generating electricity from five 6-megawatt turbines it constructed 3 miles off the coast of Block Island, the first offshore wind project in the United

States. The power from the turbines is expected to be enough to supply all of Block Island at its peak need and send surpluses to mainland Rhode Island.

Those turbines are about 14 miles from Montauk Point and are visible from the shore near Montauk Point on clear days and nights. The newly-agreed-to project would be more than twice as far from Montauk at its nearest point and between 15 and 20 miles from Block Island.

Mr. Grybowski said the company will start work on its design and planning immediately and expects to begin soliciting bids from wind turbine manufacturers later this year. The company said it will be considering both 6-megawatt and 8-megawatt turbines, a choice that would determine how many will be needed to deliver the promised 90 megawatts of power.

The company will first begin conducting new surveys of the ocean floor in the area where the turbines are proposed to be placed, both to determine the best place to put them logistically but also to answer some of the thousands of environmental impact questions that will be posed by those reviewing the project.

“We have general ideas of where we would like this to go, in the southwest region of our site, but it’s a big area,” Mr. Grybowski said on Wednesday, January 25. “This spring we will begin oceanographic studies of the site ... to look at sediment. That’s a one- to two- year process.”

If permitting goes according to plan, Mr. Grybowski said, the company expects to begin construction of the turbines in 2020. He said that Deepwater Wind will start holding public meetings to discuss the logistics of constructing the turbines and delivering the energy to the East End once they are operational.

He said the company has been and will continue to hold meetings with commercial and charter fishermen, who have raised concerns and even sued over offshore wind farm plans, fearing that the construction and operation of the turbines will drive fish away from historic migration routes. Though the exact location has not yet been determined, the area the company has identified as its likely general location envelops a popular fishing region known as Coxes Ledge used by both commercial and recreational fishermen.

The energy from the wind farm will be directed primarily to the East End, and specifically the South Fork, where LIPA has projected a growing deficit of energy supply to demand if new power sources or better delivery infrastructure are not brought online.

Governor Andrew Cuomo, who earlier this month urged LIPA to ink the agreement and set a

goal for 50 percent of the state's electricity needs to be supplied by renewable- source technology by the year 2030, applauded the historic vote.

“New York leads the nation in pioneering clean energy innovation, and this bold action marks the next step in our unprecedented commitment to offshore wind, as well as our ambitious long-term energy goal of supplying half of all electricity from renewable

sources by 2030,” Mr. Cuomo said in a statement released by his office shortly after the vote.

“This project will not only provide a new, reliable source of clean energy, but will also create high-paying jobs, continue our efforts to combat climate change and help preserve our environment for current and future generations of New Yorkers.”

POPULAR MECHANICS

New York to Build America's Largest Offshore Wind Farm

The new wind farm will generate enough electricity to power 50,000 homes.



By Avery Thompson Jan 27, 2017



America's first offshore wind farm just turned on, but we're already scheduled to start building a second one. Deepwater Wind, the company behind the country's first offshore wind farm, has just received regulatory approval to begin construction of the South Fork Wind Farm, a 90 megawatt farm off the coast of Long Island.

Offshore wind turbines are a controversial topic in the U.S., with many coastal residents concerned that the turbines could block the view and raise electricity costs. But offshore turbines are some of the most cost-effective sources of new power, with a single turbine generating upwards of 4 megawatts.

While China and many European countries have built hundreds or thousands of offshore turbines, America has built only five, all in the Block Island wind farm that was completed a

few months ago. We don't even have a dedicated ship for building offshore turbines, so a specialized ship had to sail all the way from Europe to do the job.

A press release from the office of New York governor Andrew Cuomo reveals that Long Island could be the home of 15 more offshore wind turbines in the next few years. The governor has approved construction of a 90 megawatt wind farm east of Montauk that will power 50,000 homes. This is part of the governor's goal to supply half of New York's energy with renewable sources by 2030.

Deepwater Wind has said it expects construction to begin sometime in 2019, and the project could be finished as early as 2022.

GIZMODO

Gizmodo

America's Largest Offshore Wind Farm Just Got Approved



Maddie Stone

Yesterday 5:26pm · Filed to: OFFSHORE WIND



Turbines at the Block Island Windfarm, which start generating electricity today. Image: AP Photo/Michael Dwyer

It's been a rough week for environmentalists in America, but buried amidst a torrent of reports detailing the Trump administration's war on climate science, one uplifting energy story has garnered comparably little attention: the United States may be getting a second offshore wind farm.

On Wednesday, the South Fork Wind Farm, a proposed 90-megawatt (MW) wind energy plant to be built off the coast of Long Island, was granted a power-purchase contract from the state-run Long Island Power Authority. It's a significant milestone for the proposed clean energy project, whose parent company Deepwater Wind is now in a better position to convince investors to finance the wind farm's construction.

If built, South Fork would become the second offshore wind farm in the United States. The first,

Deepwater Wind's 30 MW Block Island Wind Farm, was constructed last summer, and began feeding electricity into Rhode Island's power grid last month.

"This is a big day for clean energy in New York and our nation," Deepwater Wind CEO Jeffrey Grybowski said in a statement. "There is a huge clean energy resource blowing off of our coastline just over the horizon, and it is time to tap into this unlimited resource to power our communities."

Grybowski may have a vested interest in bringing offshore wind to America, but he isn't lying about the potential—the Department of Energy estimates that the United States has a "technical" offshore wind power capacity of 2,000 gigawatts (GW), or roughly double the electricity generated by all fossil fuel plants in the United States last year.

Harnessing even a small fraction of that potential, however, has proven extraordinarily challenging. Companies seeking to bring offshore wind power to America have struggled due to a lack of regulation at the state and federal level, as well as fierce pushback from oceanfront communities. Over the past 25 years, European nations have built thousands of offshore turbines in the Baltic and Irish seas. So far, the United States has built five.

But America is now, very slowly, starting to catch up. Even as plans for the Block Island Wind Farm—which powers the 1,000-strong community of Block Island, in addition to feeding juice into the Rhode Island grid—were still being drawn up, Deepwater Wind had its sights set on waters off Long Island for a larger, more ambitious clean energy plant.

According to a press release issued by New York State Governor Cuomo's office, the 15-odd turbines comprising the South Fork Wind Farm will sit 30 miles southeast of Montauk, and produce enough juice to power 50,000 homes. Mashable reports that the plant will cost roughly \$740 million.

A spokesperson for Deepwater Wind told Gizmodo that depending on the schedule for permitting, construction could start as early as 2019, and the wind farm could be operational as early as 2022.

Approval of the South Fork plant comes just two weeks after Cuomo set a statewide goal to develop 2,400 MW of offshore wind projects by 2030, the single largest commitment to offshore wind in US history. Massachusetts also passed a bill over the summer that'll require its utilities to purchase 1,600 MW of electricity from offshore wind farms by 2027.

Whether this nascent industry catches on more broadly will depend largely on the energy policies set by the Trump administration. Unfortunately, Trump seems to hold some rather unscientific views on wind turbines, including that they are a disaster for America's bald eagle population, and that they're sending massive amounts of steel into the atmosphere. He has called the turbines within eyeshot of one of his Scottish golf

courses "a disaster for Scotland" on par with the Lockerbie bombing.

Still, proponents are hoping Trump will put these somewhat jarring personal biases aside, and consider the manufacturing jobs a booming offshore wind industry could bring to US shores.

Let's hope that optimism is warranted. The other argument for offshore wind—that we need to transition to clean energy to prevent catastrophic climate change—seems to be going absolutely nowhere.

POLITICS

New York Just Greenlighted The Country's Biggest Offshore Wind Farm Yet

Ah, Long Island: the land of Billy Joel, beaches, bad accents and, apparently, the future of offshore wind energy.

01/26/2017 08:40 am ET

NEW YORK — The company behind the first offshore wind farm in North America won approval Wednesday from New York state to build the country's biggest seaward turbines yet.

The Long Island Power Authority, a state-run utility company, gave Deepwater Wind the green light to begin construction on the South Fork Wind Farm, a 90-megawatt, 15-turbine development 30 miles southeast of Montauk.

“New York leads the nation in pioneering clean energy innovation, and this bold action marks the next step in our unprecedented commitment to offshore wind, as well as our ambitious long term energy goal of supplying half of all electricity from renewable



REUTERS STAFF / REUTERS

A boat sails past DanTysk wind farm in Esbjerg, Denmark.

sources by 2030,” New York Gov. Andrew Cuomo (D) said in a statement. “This project will not only provide a new, reliable source of clean energy, but will also create high-paying jobs, continue our efforts to combat climate change and help preserve our environment for current and

future generations of New Yorkers.”

The move comes as the nascent U.S. offshore wind industry finally begins to gain steam. In November, Deepwater Wind completed construction on the Block Island Wind Farm, the five-turbine, 30-megawatt project that became the country’s first commercial wind farm located in the water. Last month, Statoil, Norway’s state-owned oil and gas

giant, won a \$42.5 million bid to lease 79,350 acres of federal waters located 14 miles off Long Island’s southwest coast. It’s unclear how many turbines would go up, but the company plans to build a wind farm producing at least 600 megawatts.

Winds off the coast of the U.S. are so reliably strong, turbines built offshore could generate 4,223 gigawatts of power — four times the amount of electricity that’s currently produced from all sources in the country, according to a 2012 study by the National Renewable Energy Laboratory. Yet, even as the offshore wind industry boomed in Europe, tapping that resource has proved difficult. Wind turbines remain expensive. Electricity produced mostly by natural gas and coal continues to be cheap, relative to prices in other countries. Developers must navigate a Byzantine web of state and federal regulations before gaining approval to build turbines offshore.

Despite his pledge to eliminate up to 75 percent of federal regulations, newly sworn-in President Donald Trump could complicate things for the industry. He filled his Cabinet with climate science deniers and fossil fuel executives explicitly bent on boosting the oil, gas and coal sectors by slashing environmental rules that favor zero-emissions energy sources. He has a history of battling the wind industry, describing land-based turbines as a death trap for eagles and restarting a yearslong feud over an offshore project underway that obstructs the view at his golf course in Scotland.

Under Cuomo’s plan for New York to get half of its electricity from renewable sources by 2030, offshore wind provides 2,400 megawatts — enough to power 1.25 million homes, according to state estimates.

“It’s massive, how much energy is out there,” Catherine Bowes, senior manager for climate and energy at the National Wildlife Federation, told The Huffington Post on Wednesday. She added that her nonprofit planned to work with Deepwater Wind to ensure that migrating whales, fish and other sea creatures would not be hurt by the construction of the windmills. “It is a game-changing scale of the amount of clean energy out there right where we need it, right along the big coastal zone from Boston down to Washington, D.C.,” she said.

THE WALL STREET JOURNAL.

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New York State's First Offshore Wind Farm Gets Green Light

Construction on the \$740 million project on Long Island will start in 2020



Long Island Power Authority CEO Thomas Falcone says a 15-turbine offshore wind farm project near Montauk, N.Y., would produce enough electricity to power 50,000 homes on Long Island. *PHOTO: FRANK ELTMAN/ASSOCIATED PRESS*

By **JOSEPH DE AVILA**

Updated Jan. 25, 2017 4:23 p.m. ET

UNIONDALE, N.Y.—The Long Island Power Authority completed an agreement Wednesday to build New York state's first offshore wind farm 30 miles east of Montauk, N.Y., the latest effort by the industry to gain traction in the U.S. market.

The authority, known as LIPA, signed a 20-year contract with Deepwater Wind LLC, a Rhode Island-based developer that began operating the first U.S. offshore wind farm off Block Island, R.I., in December.

Construction on the \$740 million project will start in 2020 and it aims to be operational by 2022, according to Jeff Grybowski, chief executive of Deepwater Wind, which is primarily owned by hedge fund D.E. Shaw Group.

“There is a huge offshore resource right off the coast of Long Island and it extends up and down the eastern seaboard,” Mr. Grybowski said. “We think thousands of megawatts will be built off the coast of the United States in the coming decades.”

Thomas Falcone, CEO of the Long Island Power Authority, said the 90 megawatt, 15- turbine offshore wind project would produce enough electricity to power 50,000 homes on Long Island. “It’s not the last project,” Mr. Falcone said. “And it won’t be the largest project.”

Wind power off Long Island’s shores will help Governor Andrew Cuomo achieve his goal for half of New York’s power generation to originate from alternative sources by 2030.

This agreement will “continue our efforts to combat climate change and help preserve our environment for current and future generations of New Yorkers,” Mr. Cuomo said.

Norway’s Statoil ASA recently won a federal auction for \$42.5 million to lease a 79,000- acre site about 11.5 miles south of Long Island’s Jones Beach. Statoil is still awaiting final signoffs for that lease. Commercial fishermen have opposed that project, saying the

*‘It’s not the last project.
And it won’t be the
largest project.’*

—Thomas Falcone

federal government didn’t adequately analyze the impact would have on scallop and squid fishing grounds.

The offshore wind industry has been slow to take off in the U.S. compared with Europe where

oil companies have invested heavily in numerous projects. But conditions holding the U.S. market back, including high infrastructure costs, have been improving, Long Island Power Authority officials said.

The U.S. introduced its federal regulatory process for offshore wind production about six years ago, which is one of the main reasons why the industry lags behind Europe, said Nancy Sopko, director of offshore wind and federal legislative affairs with the American Wind Energy Association. Europe has been building offshore wind farms since the 1990s, Ms. Sopko said.

The federal Bureau of Ocean Energy Management has awarded 11 offshore wind leases so far, including sites for Massachusetts, Delaware and Virginia. Massachusetts Gov. Charlie Baker, a Republican, signed a bill into law in 2016 that mandated the state to solicit long-term contracts to procure 1,600 megawatts of offshore wind power.

“The United States is really catching up now,” Ms. Sopko said.

Some opponents of offshore wind farms say the turbines pose risks to ocean life and can ruin oceanfront views. Many local residents opposed Deepwater Wind’s Block Island project, located 3 miles off the coast, saying they would be an eyesore. The Montauk project doesn’t face the same pushback because of its distance from the coast. “Superman could not see it,” Mr. Falcone said.

Kit Kennedy, director of the energy and transportation program for Natural Resources Defense Council, an advocacy group, applauded the agreement between Deepwater Wind and the Long Island Power Authority.

“It’s that start of a new clean energy industry in New York and the ramping up of that industry in the U.S.,” Ms. Kennedy said.

Wind Farm Approved for Waters Off Long Island

By DIANE CARDWELL JAN. 25, 2017

UNIONDALE, N.Y. — Seeking to meet a pocket of growing electric demand in the Hamptons with renewable energy, the Long Island Power Authority approved the nation’s largest offshore wind farm on Wednesday, set for the waters between the eastern tip of Long Island and Martha’s Vineyard.

The farm, with as many as 15 turbines capable of powering 50,000 average homes, is the first of several planned by the developer, Deepwater Wind. It will be placed in a 256- square-mile parcel, with room for as many as 200 turbines, that the company is leasing from the federal government.

“It is the largest project to date, but it will not be the last project,” the power authority’s chief executive, Thomas Falcone, said before the vote as a crowd of supporters erupted in whoops and applause.

Wind power has struggled to take off in the United States, but the Long Island project signals that the long-awaited promise of a new, lower-carbon source of electricity is poised to become part of the national energy mix.

It has been given new life by New York State’s aggressive push to meet Gov. Andrew M. Cuomo’s goal of drawing 50 percent of the state’s power from renewable sources by 2030.

“This bold action marks the next step in our unprecedented commitment to offshore wind,” Mr. Cuomo said in a prepared statement, two weeks after he publicly called for the utility to approve the proposal. “This project will not only provide a new, reliable source of clean energy but will also create high-paying jobs, continue our efforts to combat climate change and help preserve our environment for current and future generations of New Yorkers.”

The project’s cost was projected at \$1 billion but is now expected to be \$740 million. Deepwater plans to finance the project with loans and equity investments, as well as federal tax credits that could be in doubt under the Trump administration.

The turbines, each roughly 600 feet tall, would be connected to a substation in East Hampton by a 50-mile undersea cable. The town has a goal of its own: meeting all of its electric demand with renewable energy by 2020.

Other offshore wind projects, notably one off Cape Cod, have encountered opposition over their effect on ocean views. But Deepwater has said the turbines supplying East Hampton would not be visible from Montauk, on the tip of Long Island, and would barely be visible from Martha's Vineyard, 15 miles away.

The approval comes six weeks after the nation's only other functioning offshore wind- energy farm — a smaller Deepwater farm, in Rhode Island state waters off Block Island — began serving customers on the grid.

Big multinational developers like Statoil and Dong Energy are also investing in the business, snapping up leases for ocean parcels with the aim of competing for utility contracts in Maryland, Massachusetts and New York. The New York State Energy Research and Development Authority is putting together an offshore wind master plan to guide development, including a swath south of the Rockaways.

The projects have all faced some opposition, including from commercial fisheries concerned that the turbines, attached to the seafloor, will disrupt their businesses and consumers worried about higher electricity prices.

According to the power authority, which plans to buy all of the Long Island farm's output over 20 years, the cost is about the same as what it has paid for other renewable energy projects, about 16 cents a kilowatt-hour. Its average electricity price is 7.5 cents a kilowatt-hour, so the project is expected to add \$1.19 a month to the average customer bill.

Wind farm project approved by LIPA trustees

Updated January 25, 2017 10:48 PM

By Mark Harrington mark.harrington@newsday.com 



Adrienne Esposito, second from left, and environmentalists from the Offshore Wind Coalition celebrate and cheer as LIPA trustees voted to approve a 15-turbine wind farm on Wednesday, Jan. 25, 2017. The Deepwater Wind project would be located off the Rhode Island coast, 30 miles from Montauk Point, and connect to Long Island at East Hampton via an undersea cable. Photo Credit: Howard Schnapp

HIGHLIGHTS

- Deepwater Wind project off Montauk, Rhode Island to cost \$740 million
- 50-mile undersea cable would bring power to LI at East Hampton

LIPA trustees unanimously approved a resolution to finalize a contract for an offshore wind farm 30 miles from Montauk Point, a \$740 million project that could start producing energy by the end of 2022.

Amid widespread support from environmental and labor groups, trustees on Wednesday voted 9-0 to start the long process of studying, permitting and building the 15-turbine array in waters off the Rhode Island coast between Block Island and Martha's Vineyard. The project by developer

Deepwater Wind would connect to Long Island at East Hampton via a 50-mile undersea cable.

LIPA chief Tom Falcone called the initiative a “gateway project” that “is not our last.” LIPA also is considering a separate 210-megawatt project by Deepwater. He pointed to lower costs and an improved federal process, in explaining the decision to move forward. “We have the right project at the right location,” he said, adding it would have “no visual impacts.”

LIPA in 2007 rejected as too costly a \$700 million, 40-turbine project three to five miles from Jones Beach that opponents — including then-developer Donald Trump — called too close to shore. LIPA also handed off another project it had developed with Con Edison and the New York Power Authority to the state, before Norway-based Statoil recently won the right to lease that project, 11.5 miles from Jones Beach.

Gov. Andrew M. Cuomo signaled his formal blessing for the LIPA-Deepwater project in his State of the State address earlier this month, weeks after the state unsuccessfully bid for the lease rights won by Statoil. “Today’s decision means cleaner energy, new jobs and fresh momentum as we move aggressively to our goal of 50 percent renewable power by 2030,” Cuomo said of the LIPA approval.

Jeff Grybowski, chief executive of Deepwater Wind, said the \$740 million price tag included all elements of the project, “soup to nuts” — from purchase of turbines to laying the 50-mile cable to bring the energy to the South Fork.

Grybowski said the project would employ “hundreds” of Long Islanders through its six-year march to completion, though LIPA cautioned that there were no specific job guarantees in the contract. Construction could start in 2020, Grybowski said.

If certain elements of the project are begun this year, the project would qualify for a 24 percent federal investment tax credit, potentially reducing the developer cost by some \$177 million. “Our goal is to qualify for the highest federal tax credit,” Grybowski said, while declining to say whether the contract includes it.

LIPA left open the prospect of prepaying a portion of the contract’s 20-year payments to Deepwater by issuing new debt. Officials declined to provide specific figures on such arrangement. Grybowski stressed that “it’s not something we need or are asking for” to complete the project.

During a board discussion, LIPA presented a slide showing bipartisan support for the project on

Long Island from state and local officials. Trustee Matthew Cordaro, who supported the project but raised questions about its costs, noted that an important face was missing from the slide: that of President Donald Trump.

Grybowski later said the company was “very comfortable” that tax credits and federal approvals for the project wouldn’t be held up. Deepwater has a lease for the wind area, but it still needs a permit from the Bureau of Energy Ocean Management, as well as approvals from the U.S. Coast Guard and the U.S. Fish and Wildlife Service, among others. “I think folks in Washington will be very supportive,” he said.

A Trump administration spokeswoman didn’t immediately provide a comment.



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Offshore wind power coming to waters off Long Island, first of several projects planned.



Nation's Largest Offshore Wind Farm Will Be Built Off Long Island

The offshore farm, with up to 15 turbines that can power 50,000 average homes over all, will be between the eastern tip of Long Island and Martha's Vineyard.

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New York State

Governor Cuomo Announces Approval of Largest Offshore Wind Project in the Nation

90 Megawatt Offshore Wind Farm 30 Miles Off the Coast of Long Island Will Create Jobs and Power 50,000 Long Island Homes with Clean, Resilient and Affordable Energy

January 25, 2017

Governor Andrew M. Cuomo today announced the Board of Trustees of the Long Island Power Authority voted to approve the nation's largest offshore wind farm, and the first offshore wind farm in New York. The approval of the South Fork Wind Farm, a 90 megawatt development 30 miles southeast of Montauk, is the first step toward developing an area that can host up to 1,000 megawatts of offshore wind power. The wind farm, which is out of sight from Long Island's beaches, will provide enough electricity to power 50,000 Long Island homes with clean, renewable energy, and will help meet increasing electricity demand on the South Fork of Long Island.

The vote comes two weeks after Governor Cuomo called on LIPA to approve the wind farm project and announced an unprecedented commitment to develop up to 2.4 gigawatts of offshore wind by 2030 in his regional State of the State address on Long Island. The 2.4 gigawatt target, which is enough power generation for 1.25 million homes, is the largest commitment to offshore wind energy in U.S. history, helping to bring this valuable resource to New Yorkers at a scale unmatched in the United States.

"New York leads the nation in pioneering clean energy innovation, and this bold action marks the next step in our unprecedented commitment to offshore wind, as well as our ambitious long term energy goal of supplying half of all electricity from renewable sources by 2030," Governor Cuomo said. "This project will not only provide a new, reliable source of clean energy, but will

also create high-paying jobs, continue our efforts to combat climate change and help preserve our environment for current and future generations of New Yorkers."

The LIPA Board approved a contract submitted by Deepwater Wind for the South Fork Wind Farm after a year-long process engaging the private sector for the best available clean energy generation ideas and detailed cost modeling. Other elements of LIPA's

South Fork energy portfolio include transmission enhancements and additional clean energy solutions such as battery storage and consumer electricity demand reduction.

The LIPA Board approved a 20-year pay-for-performance Power Purchase Agreement, allowing the utility to only pay for delivered energy without taking construction or operating risk. Advancing technology and innovation reduced the projects all-in wind energy price to be competitive with other renewable energy sources.

In addition to today's approval for the South Fork Wind Farm, the New York State Energy Research and Development Authority is continuing to develop an Offshore Wind Master Plan outlining the State's commitment to developing cost-effective offshore wind resources in federal waters off the coast of New York. The Master Plan, to be released in late 2017, will show how additional New York coastal sites may be developed responsibly and will set capacity targets and commercial operation dates for each site. The state will continue to work closely with coastal community members, the fishing and maritime industries, environmental advocates and other stakeholders to identify additional offshore wind energy sites to be included in New York's Offshore Wind Master Plan.

Tom Falcone, LIPA's Chief Executive Officer, said, "We are confident this is the first step to developing the tremendous potential of off-shore wind off Long Island's coast and meeting Governor Cuomo's Clean Energy Standard. This project is the right size, at the right location and demonstrates how smart energy decisions can reduce cost while providing renewable energy and clean air for all of Long Island."

John Rhodes, President and CEO of NYSERDA said: "New York is leading the nation in developing offshore wind to provide clean, renewable energy and I applaud LIPA's approval of the South Fork Wind Farm. Offshore wind has great potential to help us achieve our ambitious clean energy goals under the Clean Energy Standard and Reforming the Energy Vision as well as the Governor's 2.4 gigawatt goal, and this project will reduce our carbon footprint and protect the environment for generations to come."

New York State Senator Kenneth LaValle said, “Wind and other alternative energy sources are critically important components in our overall energy strategy. This project will greatly bolster the East End’s energy reliability in an environmentally compatible manner, help stabilize rates, and create much needed construction jobs in the region.”

New York State Senator Phil Boyle said, "I applaud the Long Island Power Authority's consideration of the proposed 90-megawatt, 15-turbine wind farm east of Montauk and encourage the Board of Directors to approve the Deepwater Wind proposal. With major changes in NY’s energy markets in recent years, including retirements of coal and nuclear generation and an increasing reliance on natural gas, it is more essential than ever to increase local renewable energy sources on a large scale. The proposal by Deepwater Wind will create jobs, and will ensure the protection of NY’s coastline, the tourism industry, and the quality of life for all here on Long Island.”

New York State Senator Todd Kaminsky said, “A comprehensive offshore wind program is vital to growing a clean-energy economy and combating climate change. With this offshore wind farm, New York will take its rightful place as the national leader in

advancing renewable energy. I will continue to advocate for investments in renewable energy that lower carbon emissions and grow our clean-energy economy.”

New York State Assemblyman Steve Englebright said, “By making the commitment to move forward with this offshore wind project, LIPA will not only help New York further its state-wide carbon reduction and renewable energy goals but will also help to establish the infrastructure and quality labor force necessary to give Long Island and New York State the long-term competitive edge in an emerging offshore wind industry.”

New York State Assemblyman Fred W. Thiele, Jr. said, “Long Island, and particularly the East End, faces unique energy and economic challenges. As one of the few parts of Long Island in which energy demands continue to grow, we face a steadily increasing need for new sources of power. Our existing electricity grid is operating at its limits and, given our population density and our commitment to conservation, building any new energy infrastructure here is difficult. I am pleased that with today’s announcement LIPA broadens their commitment to maintaining a renewable energy portfolio. Not only will this help the South Fork meet its increasing energy demand, but will do so in an environmentally responsible manner, creating jobs for our State.”

Suffolk County Executive Steve Bellone said, “By locating the offshore wind farm 30 miles offshore, it will be over the horizon and will not impact views from our beaches. By installing

energy storage facilities in Montauk and Wainscott, it will deliver reliable power without the noise and emissions that accompany conventional power plants. And, by providing enough clean energy for 50,000 Long Island homes, it will help to mitigate climate change and establish New York State as a leader in clean energy.”

Kit Kennedy from NRDC said, “This is what our clean energy future looks like. Greenlighting the nation’s largest - and New York’s first - offshore wind farm would be a giant step forward in finally unleashing the largely untapped potential of this plentiful source of clean energy. Approving this project is critical to putting Governor Cuomo’s bold climate goals for the state into action.”

Lisa Dix New York Senior Representative for the Sierra Club said, “We applaud the Long Island Power Authority and Governor Cuomo for their visionary leadership today. Building New York’s first, and nation’s largest, offshore wind project is an historic first step - by providing cost-effective, reliable and pollution free electricity for Long Islanders, creating jobs and new economic development opportunities for New Yorkers, and positioning the Empire State as a national climate and clean energy leader.”

Anne Reynolds, Executive Director of ACE NY said, "It is exciting to see LIPA’s leadership on investing in offshore wind, which is key to achieving the Governor’s vision of fifty percent renewable energy. LIPA recognizes that offshore wind can help affordably meet Long Island’s electricity needs with clean and homegrown power."

Adrienne Esposito, Executive Director, Citizens Campaign for the Environment said, “Our transition from fossil fuels to renewables has just taken a giant leap forward with this historic decision. This is game changer, a legacy that all New Yorkers will be proud of. By tackling climate change head on New York is proving to be a global leader.”

Gordian Raacke, Executive Director of Renewable Energy Long Island said, “This is a big step for LIPA, a bold step for renewable energy on Long Island, and the beginning of an offshore wind industry in the State of New York and the country. “We commend Governor Cuomo and LIPA for showing visionary leadership in the transition to renewable energy and thank all who have advocated for offshore wind energy over the last couple of decades.”

Elizabeth Gordon, Director of the New York Offshore Wind Alliance said, “LIPA’s 90 MW South Fork project moves New York to the forefront of offshore wind development in America. “Major progress on what will be the nation’s largest offshore wind project, combined with Governor Cuomo’s 2,400 MW commitment, makes it clear that New York is entering a new

energy era – one where offshore wind power is poised to play a key role in meeting down state’s electricity needs.”

Karl R. Rábago, Pace Energy and Climate Center said, “It is gratifying to see years of advocacy for clean energy development bearing fruit in such a spectacular fashion. And it is inspiring to have the leadership in New York that made it happen.”

Heather Leibowitz, Director, Environment New York said, "Offshore wind needs to be a significant part of the energy mix. It is key to putting the Empire State on a path toward an economy powered entirely by renewable energy. The 90-megawatts of energy produced off east Montauk will get us one step closer to this goal.”

Kevin Law, President and CEO of the Long Island Association said, "The offshore wind farm proposed by Deepwater Wind is an important step forward in building Long Island's clean energy economy, creating new jobs in this industry and diversifying our fuel sources which is why the LIA has supported this project."

John R. Durso, President, Long Island Federation of Labor, AFL-CIO said, “LIPA’s decision to enter into an agreement with Deepwater Wind is good news for the Long Island labor movement. It is a first step in realizing the potential for a new American industry with Long Island at the epicenter. We thank New York State for their commitment to our energy future, an opportunity which includes union jobs. We are excited to put our skilled workforce on the job.”



LIPA Approves Power From Offshore Wind off Montauk

Posted by [Beth Young](#) • [January 25, 2017](#) • [Top Stories](#) • [Add Comment](#)



Activists rallied outside LIPA headquarters in December in support of offshore wind.

The nine-member Long Island Power Authority Board of Directors unanimously approved the purchase of offshore wind power from the proposed Deepwater ONE site off the coast of Montauk Wednesday morning.

The proposal by Rhode Island-based Deepwater Wind would be the second and largest offshore wind turbine project in United States waters, with 15 turbines providing 90 megawatts of power to the East End of Long Island.

The news comes on the heels of Governor Andrew Cuomo's commitment in his State of the State address two weeks ago to develop up to 2.4 gigawatts of offshore wind by 2030, enough to power 1.25 million homes.

“This is a big day for clean energy in New York and our nation,” said Deepwater Wind CEO Jeffrey Grybowski in a statement after the LIPA board vote. “Governor Cuomo has

set a bold vision for a clean energy future, and this project is a significant step toward making that a reality. The South Fork Wind Farm will be the second offshore wind farm in America, and its largest. There is a huge clean energy resource blowing off of our coastline just over the horizon, and it is time to tap into this unlimited resource to power our communities.”

Deepwater Wind is also the developer of a smaller project off the coast of Block Island, the first in the nation, which went online in December 2016. The new Deepwater ONE project includes 15 six-megawatt turbines and would generate enough energy to power approximately 50,000 homes. Deepwater Wind has enough space at their site 30 miles off of Montauk to install 200 turbines, and received a 30-year lease on the 256-square-acre site in 2013 from the federal Bureau of Ocean Energy Management.

The electricity from the turbines would tie into the South Fork’s electric grid with two new GE battery energy storage systems at existing electric substations in Montauk and Wainscott.

Today’s vote had originally been slated for July of 2016, but was postponed because LIPA officials wanted to wait to receive a blueprint for offshore wind from the New York State Energy and Research Development Agency.

Governor Cuomo put the state’s weight behind the project in his State of the State commitment.

“New York leads the nation in pioneering clean energy innovation, and this bold action marks the next step in our unprecedented commitment to offshore wind, as well as our ambitious long term energy goal of supplying half of all electricity from renewable sources by 2030,” said Governor Cuomo in a statement Wednesday. “This project will not only provide a new, reliable source of clean energy, but will also create high-paying jobs, continue our efforts to combat climate change and help preserve our environment for current and future generations of New Yorkers.”

The \$740 million project is being constructed with funding from Deepwater Wind’s equity investors and financiers. The LIPA Board approved a 20-year pay-for- performance Power Purchase Agreement, allowing the utility to only pay for delivered energy without taking construction or operating risk.

Deepwater Wind spokeswoman Meaghan Wims said Wednesday that “the power price is the

lowest-cost option in this RFP, and very competitive with renewables across Long Island,” which typically cost about 16 cents per kilowatt/hour.

“We are confident this is the first step to developing the tremendous potential of off-shore wind off Long Island’s coast and meeting Governor Cuomo’s Clean Energy Standard,” said LIPA CEO Thomas Falcone. “This project is the right size, at the right location and demonstrates how smart energy decisions can reduce cost while providing renewable energy and clean air for all of Long Island.”

“This offshore wind project is exciting news for Long Island as our region continues to diversify its energy supply and builds a clean energy economy,” said Long Island Association President & CEO Kevin Law.

“Long Island, and particularly the East End, faces unique energy and economic challenges,” added State Assemblyman Fred Thiele of Sag Harbor. “As one of the few parts of Long Island in which energy demands continue to grow, we face a steadily increasing need for new sources of power.... Not only will this help the South Fork meet its increasing energy demand, but will do so in an environmentally responsible manner, creating jobs for our state.”

“This is a big step for LIPA, a bold step for renewable energy on Long Island, and the beginning of an offshore wind industry in the State of New York and the country,” said Renewable Energy Long Island Executive Director Gordian Raacke. “We commend Governor Cuomo and LIPA for showing visionary leadership in the transition to renewable energy and thank all who have advocated for offshore wind energy over the last couple of decades.”

This giant offshore wind farm will be the largest in the U.S.



Three of five wind turbines from the Deepwater Wind's Block Island offshore wind farm are seen near Rhode Island.



**BY MARIA
GALLUCCI**

The largest offshore wind farm in the United States is one step closer to becoming a reality.

The 90-megawatt project planned near Long Island, New York, would be only the second offshore wind farm to operate in the country, which lags way behind Europe and China when it comes to offshore wind.

The wind farm cleared a major hurdle on Wednesday after Long Island's public utility unanimously approved a long-term contract to buy its electricity. Without this deal, the project's developers would have a harder time convincing banks to finance the wind farm's construction.

"This is a big day for clean energy in New York and our nation," said Jeffrey Grybowski, CEO of Deepwater Wind, the wind farm's developer.

"There is a huge clean energy resource blowing off of our coastline just over the horizon, and it is time to tap into this unlimited resource to power our communities," he said in a statement to *Mashable*.



While Europe and China have installed thousands of wind turbines in their waters in recent years, the U.S. has built only five. Over the last decade, a handful of proposed U.S. offshore wind farms were canceled or indefinitely delayed.

State and federal agencies initially lacked regulations and guidelines for such projects, which caused set-backs, as did lawsuits from local opposition groups. Utilities were reluctant to sign contracts for offshore wind power, which is generally more expensive than on-shore power. Banks and investors were skittish when it came to spending hundreds of millions of dollars on projects they weren't sure would pay off.

After its own fits and starts, Deepwater Wind won the race to build America's first offshore wind farm in August, with its 30-megawatt project near Block Island, Rhode Island.

The company's new 90-megawatt project will stand in federal waters off Long Island's South Fork Peninsula.



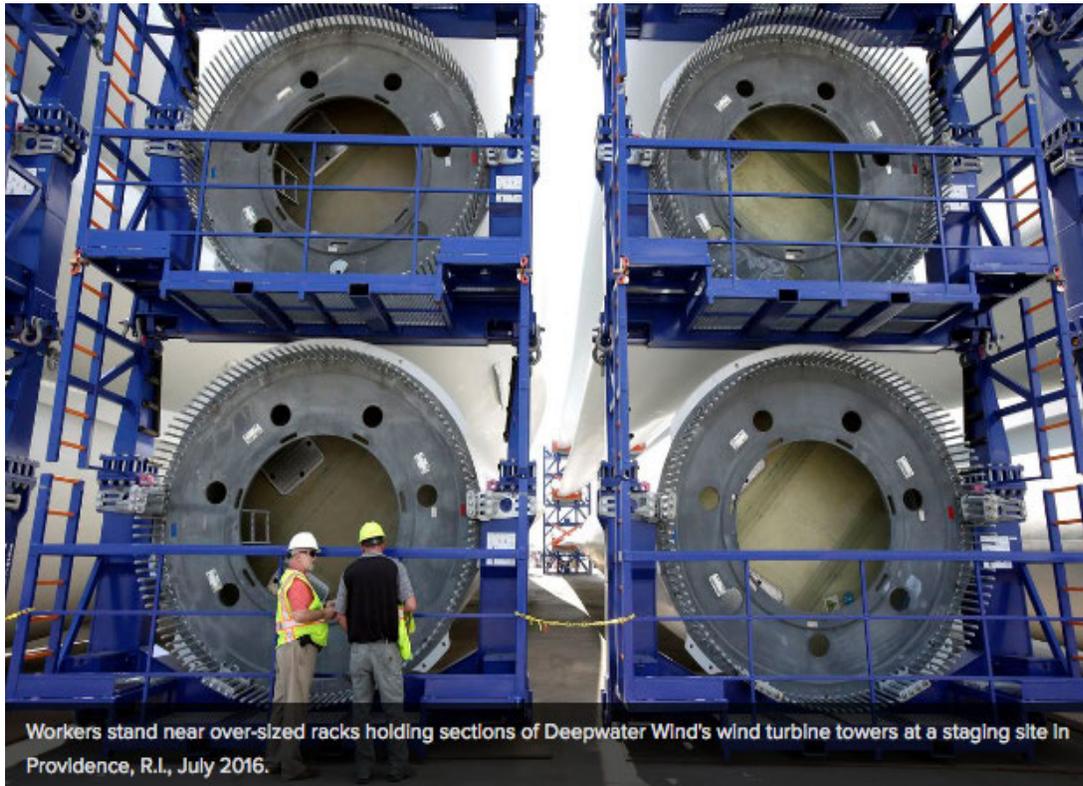
Deepwater Wind said its \$740 million installation will have up to 15 turbines and produce enough power to light up roughly 50,000 homes. Depending on the permitting schedule, construction could start as early as 2019, and the wind farm could start operating as early as 2022.

The company envisions developing an additional 210 megawatts in the area, which would bring the Long Island wind farm to 300 megawatts when completed.

The Long Island Power Authority (LIPA) signed the 20-year power purchase agreement with Deepwater Wind on Wednesday largely to help meet its targets for increasing renewable energy supplies.

New York Gov. Andrew Cuomo this month set a statewide goal to develop up to 2,400 megawatts of offshore wind projects by 2030. The target — enough to power about 1.25 million homes — is a vital piece of Cuomo's vision to get 50 percent of New York's electricity needs from renewables within 13 years.

LIPA's decision "in particular is going to really be remembered as a pivotal moment in launching the offshore wind industry in New York, and probably on the East Coast," Lisa Dix, the Sierra Club's New York State campaign director, told *Mashable*.



Workers stand near over-sized racks holding sections of Deepwater Wind's wind turbine towers at a staging site in Providence, R.I., July 2016.

Sierra Club and other environmental organizations have been pushing state policymakers and utility companies to embrace offshore wind as part of the state's clean energy future.

In densely populated areas like New York City and Long Island — where land is at a premium — turbines spinning in the water offer one of the few realistic options for providing large amounts of renewable electricity to energy-hungry communities.

Offshore wind proponents also teamed up with major labor organizations, including the AFL-CIO and International Brotherhood of Electric Workers. Towering offshore turbines include thousands of components that must be assembled at ports, providing a potential boon for local manufacturing, supporters say.

Gov. Cuomo said in a statement that the planned South Fork wind farm would "create high-paying jobs" while helping to advance New York's efforts to combat climate change.



Associated Press

New York Utility OKs Wind Energy Project off Long Island

By THE ASSOCIATED PRESS

UNIONDALE, N.Y. — Jan 25, 2017, 1:51 PM ET

A New York utility has approved a plan to build a small wind farm off the coast of Long Island. The 90-megawatt, 15-turbine wind farm would be the second wind project built to date in the United States.

Officials hope it will help prove the feasibility of larger offshore wind farms in the U.S. Several auctions have been held to develop wind energy sites along the east coast.

Deepwater Wind CEO Jeff Grybowski says the cost of the new project is \$740 million.

Last month, Deepwater Wind opened a five-turbine wind farm off Rhode Island. New York Gov. Andrew Cuomo says the state is committed to developing up to 2,400 megawatts of offshore wind power by 2030. That's enough power for 1.25 million homes.

The New York Times

SUNDAY, JANUARY 22, 2017

Now Testing The Waters: Wind Power

Offshore windmills finally rise,
but policy currents start to shift.



KAYANA SZYMCAK FOR THE NEW YORK TIMES

Wind turbines off Block Island, R.I. A larger
wind farm is planned off Montauk, N.Y.

Now Testing the Waters: Wind Power

By DIANE CARDWELL

Only a few years ago, the long-held dream of harnessing the strong, steady gusts off the Atlantic coast to make electricity seemed destined to remain just that. Proposals for offshore wind farms foundered on the shoals of high costs, regulatory hurdles and the fierce opposition of those who didn't want giant industrial machinery puncturing the pristine ocean views.

Now the industry is poised to take off, just as the American political landscape and energy policy itself face perhaps the greatest uncertainty in a generation.

Last fall, five turbines in the waters of Rhode Island — the country's first offshore farm — began delivering power to the grid. European energy developers like Statoil and Dong Energy are making big investments to bring projects to American waters. Last year in Massachusetts, Gov. Charlie Baker, a Republican, signed into law a mandate that is pushing development forward.

And in New York, after years of stymied progress, the Long Island Power Authority has reached an agreement with Deepwater Wind, which built the Rhode Island turbine array, to drop a much larger farm — 15 turbines capable of running 50,000 average homes — into the ocean about 35 miles from Montauk. If approved by the utility board

CONTINUED ON PAGE 6



KAYANA SZYMCAK FOR THE NEW YORK TIMES

Above, turbines in the Block Island Wind Farm off Rhode Island. Future projects, like Deepwater Wind's plan off Long Island, could be test cases for how far states can pursue clean energy agendas under the Trump administration.

CONTINUED FROM PAGE 1
on Wednesday, the \$1 billion installation could become the first of several in a 256-square-mile parcel, with room for as many as 200 turbines, that Deepwater is leasing from the federal government.

“We’re developing this first offshore wind project in federal waters, but it’s really a gateway project to other locations around Long Island,” said Thomas Falcone, the power authority’s chief executive. “We’re now at a point where developers can build projects at prices where utilities are willing buyers, and to me that is a very big deal.”

These projects could also become an important test case in establishing just how far states can go to pursue their clean energy agendas under the Trump administration. Before putting steel in the water, the project would need federal approvals and policies that are in doubt amid Washington's changing of the guard.

Wind power has finally become viable for a number of delicately interlaced reasons. It has taken favorable state policies and technological and economic advances to spur the current level of activity, as well as interest among developers and investors, including foreign oil and gas companies that see offshore wind as an important part of their corporate strategies. In Europe, where the offshore wind industry is far ahead of the United States', costs have plummeted to roughly half of what they were five years ago, said Thomas Brostrom, who runs United States operations for Dong Energy, the Danish oil and gas giant and a leading offshore wind developer.

As the industry has grown, manufacturers have been able to take advantage of economies of scale and cut their prices. At the same time, turbines have grown ever larger, allowing them to capture and produce more energy on the same site.

Dong hopes to help foster similar developments in the United States. The company bought leases in Massachusetts and New Jersey and opened an office in Boston. "We are here to create an industry," Mr. Brostrom said. "There's still a ways to go, but everything that we hoped would happen has happened."

Dong has plenty of company. Statoil, the Norwegian fossil-fuel giant, has been aiming to get into the offshore business in the United States for years, and proposed in 2011 to build a farm off the Maine coast using floating platforms it had designed. The company withdrew the project two years later amid uncertainty over changing state policies, eventually deciding to build off the Scottish coast.

Now it is back, having won a 33-round auction to secure a 79,000-acre site south of Jones Beach on Long Island. Statoil beat out several other bidders, including the state's energy agency, Dong and a subsidiary of Iberdrola, a leading energy company based in Spain. Statoil pledged \$42.5 million for the lease, which still awaits final signoffs from the Federal Trade Commission and the Justice Department, far more than the \$16 million generated by all earlier offshore wind auctions combined.

"There's a lot of companies starting to invest that had been wary of the U.S. offshore wind market and some of the initial lease sales," said Walter Cruickshank, acting director of the Bureau of Ocean Energy Management. "They have been coming to the table in a big way more recently."

The appeal of offshore winds as an energy source goes beyond their potential role in efforts to slow global warming. As people flock to coastal cities, where land is scarce and expensive, and conventional power plants are moving toward retirement, states have looked to add new forms of power production. Moving it out to sea has become more attractive, proponents say.

The country's coasts, home to over half the population, offer some of the strongest wind resources in the world, creating, in theory, enough energy to provide roughly four times the power the nation now produces.

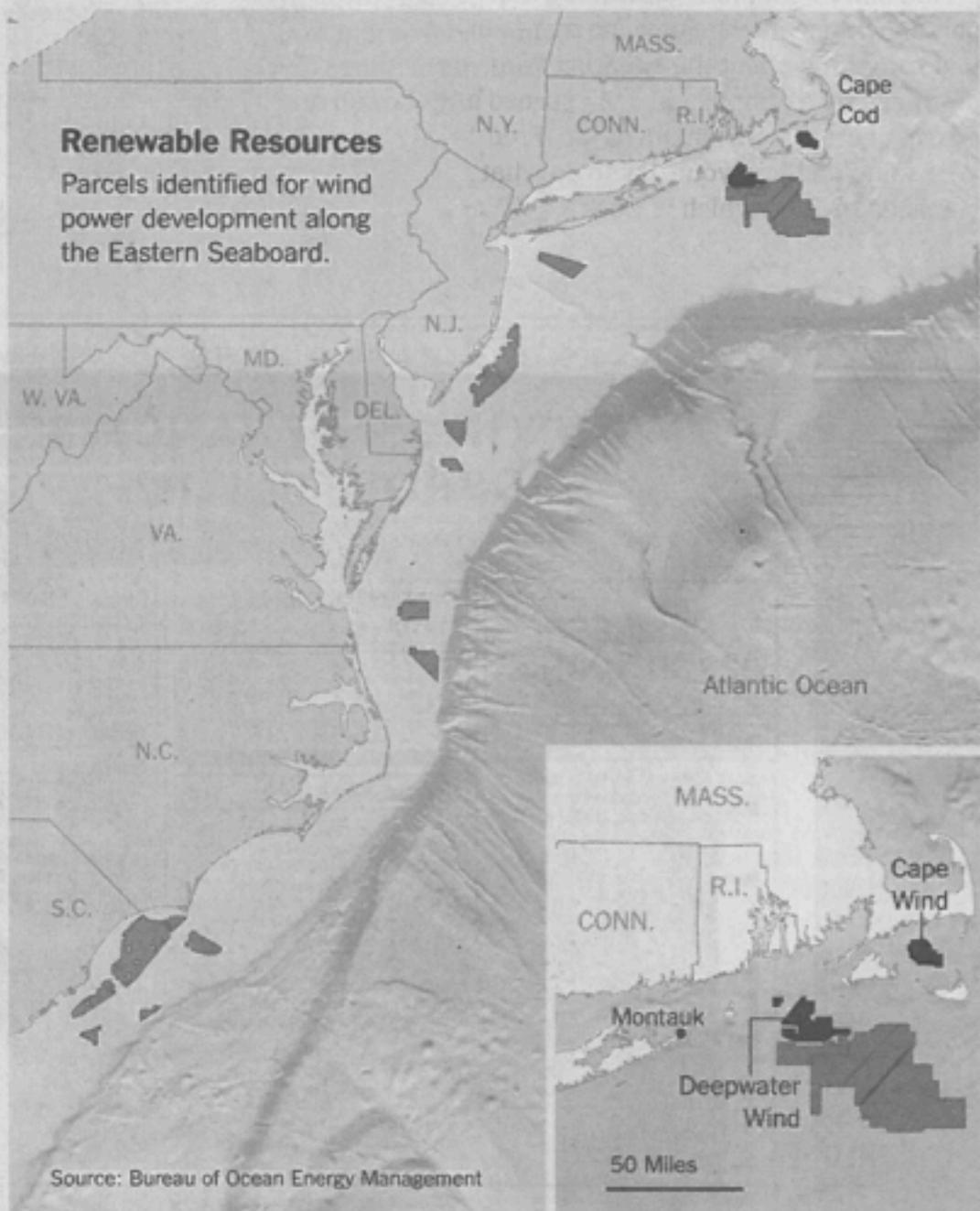
Though it is easier and cheaper to con-

struct turbines on land, the East Coast in particular offers opportunity because of its strong winds and shallow waters, which means turbines can operate farther out to sea, and out of sight. The potential of offshore wind power converged with rising demand on Long Island's South Fork, where in areas like the Hamptons, commercial activity was rising and property owners were building larger houses, calling for more air-conditioning and more pool pumps.

In New York, the Long Island farm is part of a plan to meet Gov. Andrew M. Cuomo's goal of drawing 50 percent of the state's power from renewable sources by 2030. That includes developing 2.4 gigawatts of offshore wind, he said in his State of the State address this month, by far the nation's highest target, equaling the capacity of the

Renewable Resources

Parcels identified for wind power development along the Eastern Seaboard.



Source: Bureau of Ocean Energy Management

THE NEW YORK TIMES

Niagara Falls generating station.

The wind array would not be visible from Montauk Point, and difficult to see from Martha's Vineyard, some 15 miles away, said Jeffrey Grybowski, Deepwater's chief executive. That makes it unlikely to stir the kind of public opposition that all but sank Cape Wind, the ambitious development that would have positioned 130 wind machines just five miles off Cape Cod but stalled in a political storm over blighted vistas.

The Rhode Island project allowed Deepwater to work through many of the obstacles that had been holding back the industry, Mr. Grybowski said, including the lack of an established permit process and acceptance on the part of the public and the electric companies. "The Block Island project made offshore wind a reality in the United States," he said, "so the conversations changed with utilities, who want to know that you can actually deliver on a project that you're proposing to them."

Indeed, officials at the Bureau of Ocean Energy Management, which approved the Cape Wind site in 2010, have spent years clarifying rules and identifying marine parcels suitable for wind power development in an effort to balance several often-competing concerns. Those include the needs of marine life and of industry, along with those of coastal communities. They also include the demand for economic development and clean energy sources, from states concerned about both job losses and climate change. Since 2013, the agency has conducted six competitive auctions of long-term leases for parcels from New England to Virginia, and in the past week it announced a seventh, for North Carolina, scheduled to take place in March.

Deepwater Wind first proposed the South Fork wind farm in response to a Long Island Power Authority solicitation for projects, but it was ultimately rejected by the authority's board in favor of several solar farms. The wind developer returned the next year with a new proposal that came close to approval a number of times, but fell short.

Now, however, executives have negotiated a contract that they expect the board to approve. Under it, the utility will purchase all of the electricity delivered from the turbines by an underwater transmission line to a substation in East Hampton, paying a price comparable to what it would pay for other utility-scaled renewables like onshore wind and solar, according to the utility.

Those prices have run around 16 cents a kilowatt-hour, higher than its average wholesale price of 7.5 cents.

Deepwater plans to finance the project with a mix of loans and equity investments, though it is unclear if it will be able to benefit from federal tax credits that have spurred investment in wind farms and helped reduce the price of the power they produce. Until this year, a federal investment tax credit worth 30 percent of the development cost could be claimed. That has dropped to 24 percent for projects that begin this year and is set to be phased out by the end of 2019. To qualify, the project would need to demonstrate construction activity by then, which could be open to interpretation by the Treasury Department.

But wind developers and advocates say the credit is also important to red states in the middle of the country, where it has helped drive the spread of land-based wind farms. Nurturing an offshore wind industry would meet the stated goals of many Republican lawmakers and the Trump administration, including the pursuit of an "all of the above" energy program. Building and installing the wind machines could create thousands of new jobs, as it has in the land-based wind business, in manufacturing and construction. The project would also require special vessels and large onshore staging areas to assemble the components of the platforms and turbines, which could help the shipbuilding and port industries.

"We're a heavy industry that's poised to build, employ and invest," said Nancy Sopko, who manages advocacy and federal legislative affairs at the American Wind Industry Association.

That momentum may be difficult to slow, even if new federal policies put a stop to the Bureau of Ocean Energy Management's leasing activities for wind energy, its proponents say. The active leases alone, if developed, are enough to create an industry, they say. And the commitments of states like New York and Massachusetts, and experienced multinational developers, show that the struggle to harness Atlantic breezes is no longer the same as tilting at windmills.

"It is a sign of something that's inevitable, which is the addition of offshore wind into the energy mix," said Erik Gordon, a clinical assistant professor at the Ross School of Business at the University of Michigan. "It's just going to be too appealing. In the end, the economics trump Trump."



KATANA SZYMCAK FOR THE NEW YORK TIMES

TESTING THE WATERS The Block Island Wind Farm, above, just off the coast of Rhode Island, is the first offshore wind farm in the United States. Such farms are poised to take off, just as the American political landscape undergoes a dramatic shift. SUNDAY BUSINESS, PAGE 1

The New York Times

The New York Times

ENERGY & ENVIRONMENT

Off Long Island, Wind Power Tests the Waters

By DIANE CARDWELL JAN. 21, 2017



Wind turbines off Block Island, R.I. A larger wind farm, planned off Long Island, is up for approval this week. Kayana Szymczak for The New York Times

Only a few years ago, the long-held dream of harnessing the strong, steady gusts off the Atlantic

coast to make electricity seemed destined to remain just that. Proposals for offshore wind farms foundered on the shoals of high costs, regulatory hurdles and the fierce opposition of those who didn't want giant industrial machinery puncturing the pristine ocean views.

Now the industry is poised to take off, just as the American political landscape and energy policy itself face perhaps the greatest uncertainty in a generation.

Last fall, five turbines in the waters of Rhode Island — the country's first offshore farm — began delivering power to the grid. European energy developers like Statoil and Dong Energy are making big investments to bring projects to American waters. Last year in Massachusetts, Gov. Charlie Baker, a Republican, signed into law a mandate that is pushing development forward.

And in New York, after years of stymied progress, the Long Island Power Authority has reached an agreement with Deepwater Wind, which built the Rhode Island turbine array, to drop a much larger farm — 15 turbines capable of running 50,000 average homes — into the ocean about 35 miles from Montauk. If approved by the utility board on Wednesday, the \$1 billion installation could become the first of several in a 256-square-mile parcel, with room for as many as 200 turbines, that Deepwater is leasing from the federal government.

“We're developing this first offshore wind project in federal waters, but it's really a gateway project to other locations around Long Island,” said Thomas Falcone, the power authority's chief executive. “We're now at a point where developers can build projects at prices where utilities are willing buyers, and to me that is a very big deal.”

Harnessing Power Offshore

Parcels identified for wind power development along the Eastern Seaboard.



Source: Bureau of Ocean Energy Management
By The New York Times

These projects could also become an important test case in establishing just how far states can go to pursue their clean energy agendas under the Trump administration. Before putting steel in the water, the project would need federal approvals and policies that are in doubt amid Washington's changing of the guard.

Wind power has finally become viable for a number of delicately interlaced reasons. It has taken

favorable state policies and technological and economic advances to spur the

current level of activity, as well as interest among developers and investors, including foreign oil and gas companies that see offshore wind as an important part of their corporate strategies. In Europe, where the offshore wind industry is far ahead of the United States', costs have plummeted to roughly half of what they were five years ago, said Thomas Brostrom, who runs United States operations for Dong Energy, the Danish oil and gas giant and a leading offshore wind developer.

As the industry has grown, manufacturers have been able to take advantage of economies of scale and cut their prices. At the same time, turbines have grown ever larger, allowing them to capture and produce more energy on the same site.

Dong hopes to help foster similar developments in the United States. The company bought leases in Massachusetts and New Jersey and opened an office in Boston. "We are here to create an industry," Mr. Brostrom said. "There's still a ways to go, but everything that we hoped would happen has happened."

Dong has plenty of company. Statoil, the Norwegian fossil-fuel giant, has been aiming to get into the offshore business in the United States for years, and proposed in 2011 to build a farm off the Maine coast using floating platforms it had designed. The company withdrew the project two years later amid uncertainty over changing state policies, eventually deciding to build off the Scottish coast.

Now it is back, having won a 33-round auction to secure a 79,000-acre site south of Jones Beach on Long Island. Statoil beat out several other bidders, including the state's energy agency, Dong and a subsidiary of Iberdrola, a leading energy company based in Spain. Statoil pledged \$42.5 million for the lease, which still awaits final signoffs, far more than the \$16 million generated by all earlier offshore wind auctions combined.

"There's a lot of companies starting to invest that had been wary of the U.S. offshore wind market and some of the initial lease sales," said Walter Cruickshank, acting director of the Bureau of Ocean Energy Management. "They have been coming to the table in a big way more recently."

The appeal of offshore winds as an energy source goes beyond their potential role in efforts to slow global warming. As people flock to coastal cities, where land is scarce and expensive, and conventional power plants are moving toward retirement, states have looked to add new forms of

power production. Moving it out to sea has become more attractive, proponents say.

The country's coasts, home to over half the population, offer some of the strongest wind resources in the world, creating, in theory, enough energy to provide roughly four times the power the nation now produces.

Though it is easier and cheaper to construct turbines on land, the East Coast in particular offers opportunity because of its strong winds and shallow waters, which means turbines can operate farther out to sea, and out of sight. The potential of offshore wind power

converged with rising demand on Long Island's South Fork, where in areas like the Hamptons, commercial activity was rising and property owners were building larger houses, calling for more air-conditioning and more pool pumps.

In New York, the Long Island farm is part of a plan to meet Gov. Andrew M. Cuomo's goal of drawing 50 percent of the state's power from renewable sources by 2030. That includes developing 2.4 gigawatts of offshore wind, he said in his State of the State address this month, by far the nation's highest target, equaling the capacity of the Niagara Falls generating station.

The wind array would not be visible from Montauk Point, and difficult to see from Martha's Vineyard, some 15 miles away, said Jeffrey Grybowski, Deepwater's chief executive. That makes it unlikely to stir the kind of public opposition that all but sank Cape Wind, the ambitious development that would have positioned 130 wind machines just five miles off Cape Cod but stalled in a political storm over blighted vistas.

The Rhode Island project allowed Deepwater to work through many of the obstacles that had been holding back the industry, Mr. Grybowski said, including the lack of an established permit process and acceptance on the part of the public and the electric companies. "The Block Island project made offshore wind a reality in the United States," he said, "so the conversations changed with utilities, who want to know that you can actually deliver on a project that you're proposing to them."

Indeed, officials at the Bureau of Ocean Energy Management, which approved the Cape Wind site in 2010, have spent years clarifying rules and identifying marine parcels



Turbines in the Block Island Wind Farm off Rhode Island, seen from a fishing boat. Future projects, like Deepwater Wind's plan off Long Island, could be test cases for how far states can pursue clean energy agendas under the Trump administration. Kayana Szymczak for The New York Times

suitable for wind power development in an effort to balance several often-competing concerns. Those include the needs of marine life and of industry, along with those of coastal communities. They also include the demand for economic development and clean energy sources, from states concerned about both job losses and climate change. Since 2013, the agency has conducted six competitive auctions of long-term leases for parcels from New England to Virginia, and in the past week it announced a seventh, for North Carolina, scheduled to take place in March.

Deepwater Wind first proposed the South Fork wind farm in response to a Long Island Power Authority solicitation for projects, but it was ultimately rejected by the authority's board in favor of several solar farms. The wind developer returned the next year with a new proposal that came close to approval a number of times, but fell short.

Now, however, executives have negotiated a contract that they expect the board to approve. Under it, the utility will purchase all of the electricity delivered from the turbines by an underwater transmission line to a substation in East Hampton, paying a price comparable to what it would pay for other utility-scaled renewables like onshore wind and solar, according to the utility. Those prices have run around 16 cents a kilowatt-hour, higher than its average wholesale price of 7.5 cents.

Deepwater plans to finance the project with a mix of loans and equity investments, though it is unclear if it will be able to benefit from federal tax credits that have spurred investment in wind

farms and helped reduce the price of the power they produce. Until this year, a federal investment tax credit worth 30 percent of the development cost could be claimed. That has dropped to 24 percent for projects that begin this year and is set to be phased out by the end of 2019. To qualify, the project would need to demonstrate construction activity by then, which could be open to interpretation by the Treasury Department.

But wind developers and advocates say the credit is also important to red states in the middle of the country, where it has helped drive the spread of land-based wind farms. Nurturing an offshore wind industry would meet the stated goals of many Republican lawmakers and the Trump administration, including the pursuit of an “all of the above” energy program. Building and installing the wind machines could create thousands of new jobs, as it has in the land-based wind business, in manufacturing and construction. The project would also require special vessels and large onshore staging areas to assemble the components of the platforms and turbines, which could help the shipbuilding and port industries.

“We’re a heavy industry that’s poised to build, employ and invest,” said Nancy Sopko, who manages advocacy and federal legislative affairs at the American Wind Industry Association.

That momentum may be difficult to slow, even if new federal policies put a stop to the Bureau of Ocean Energy Management’s leasing activities for wind energy, its proponents say. The active leases alone, if developed, are enough to create an industry, they say. And

the commitments of states like New York and Massachusetts, and experienced multinational developers, show that the struggle to harness Atlantic breezes is no longer the same as tilting at windmills.

“It is a sign of something that’s inevitable, which is the addition of offshore wind into the energy mix,” said Erik Gordon, a clinical assistant professor at the Ross School of Business at the University of Michigan. “It’s just going to be too appealing. In the end, the economics trump Trump.”

27 East

News

Publication: The Southampton Press

Jan 11, 2017 5:13 PM

LIPA And Deepwater Wind Reach Agreement For South Fork Electrical Project



Jan 17, 2017 2:24 PM

The Long Island Power Authority and the offshore wind energy company Deepwater Wind have reached an agreement about the terms for a project off Montauk that would deliver enough wind-generated electricity to power 50,000 South Fork homes.

The CEO of Deepwater Wind, Jeff Grybowski, said this week that the company is hopeful the LIPA board of directors will ratify the contract agreement at its next meeting later this month.

A LIPA spokesman could not be reached for comment.

“We have completed negotiations with the LIPA team and look forward to the LIPA board’s consideration of the project at their upcoming meeting,” Mr. Grybowski said in an email message this week. “Our South Fork Wind Farm is the cleanest, cheapest and most supported new source of energy for the South Fork, and we remain confident that it will become a major

part of New York's clean energy future.”

The wind farm proposal calls for between 12 and 15 wind turbines, each standing some 600 feet tall, anchored to the sea floor about 30 miles southeast of Long Island, about midway between Montauk and Nantucket.

The announcement of the LIPA-Deepwater agreement comes on the heels of Governor Andrew Cuomo's annual State of the State address, in which the governor urged LIPA to move on what would be the state's first offshore wind energy project and beyond.

The governor also set lofty renewable energy goals for the state, despite what is expected to be a skeptical, if not hostile, view of wind energy at the federal level under the incoming Trump administration.

Mr. Cuomo said he wants the state lawmakers to press for the construction of hundreds of wind turbines in the waters south of Long Island, where the federal Department of Energy just auctioned off the rights to 79,000 acres of sea floor for wind turbine construction, to create enough electricity for more than 1 million homes, by the year 2030.

“New York's unparalleled commitment to offshore wind power will create new, high-paying jobs, reduce our carbon footprint, establish a new, reliable source of energy for millions of New Yorkers, and solidify New York's status as a national clean energy leader,” Mr. Cuomo said in his address.

Deepwater Wind built the very first offshore wind farm in the United States, just three miles off Block Island's ocean bluffs and visible from Montauk. The five 6-megawatt turbines, similar in size to those proposed for the second project, officially went “on-line” in December, though not all of the turbines are up and running yet.

The 12 to 15 turbines the company has proposed building, as part of what it calls its South Fork Wind Farm, would be another 15 miles farther offshore and could generate up to 90 megawatts of energy.

The state's renewable energy division, NYSERDA, is working on an offshore wind master plan that is expected to map out areas suitable for the construction of as many as 100 more turbines south of the Rockaways, in the area of ocean known as the New York Bight.

Commercial fishing industry advocates and some wildlife groups have raised objections to the use of offshore wind turbines, claiming that the construction and placement of the turbines damages marine habitats, will disturb and drive away fish species, pose dangers to some rare birds and could wedge fishermen out of some sectors of the ocean. Several fishing industry groups sued unsuccessfully to halt the auction of rights for 79,000 acres of sea floor off the Rockaways in December.

Renewable energy advocates celebrated the governor's goals this week.

“Governor Cuomo’s bold commitment to harvest New York’s abundant offshore wind power could make us a regional hub for offshore wind development, creating jobs and attracting significant industry investments, while allowing the state to reach its 50-percent renewable energy mandate,” said Gordian Raacke, executive director of Renewable Energy Long Island, a renewable energy advocacy group.

In addition to the targeted goals of wind-generated energy development, the governor also called for the state to set a long-term goal for its own facilities to become 100 percent reliant on only renewable energy, a goal that East Hampton Town adopted for itself in 2013.

THE EAST HAMPTON STAR



SHINES FOR ALL

Cuomo Calls for Wind Power

By Christopher Walsh | January 12, 2017 - 2:06pm

The winds of change blew stronger on Tuesday when Gov. Andrew M. Cuomo announced the goal of 2,400 megawatts of offshore wind power to be harvested annually by 2030, enough to power 1.25 million residences. He pointedly added, in a State of the State address at Farmingdale State College, one of six scheduled this week, that “we are not going to stop until we reach 100-percent renewable, because that’s what a sustainable New York is really all about.”

The governor called on the Long Island Power Authority to approve a 90-megawatt offshore wind farm to be situated 30 miles off Montauk proposed by Deepwater Wind, a Rhode Island company. LIPA’s board of directors is expected to vote on the proposal on Friday, Jan. 20. The utility’s chief executive officer had previously indicated his support for offshore wind.

The governor’s remarks came one day after his announcement that the Indian Point nuclear power plant, in Buchanan, N.Y., is scheduled to close by April 2021.

The proposed wind farm’s 15 turbines, which could power 50,000 residences, would not be visible from the land, the governor said. “Not even Superman standing on Montauk Point could see these wind farms,” he said. “But the upside is tremendous. It will be the largest offshore wind project in our nation’s history, not just in existence. It’s jobs. It’s clean energy and it’s inexpensive energy, which then drives the economy. And we are not going to stop there.”

The latter comment was a reference to the state’s Clean Energy Standard, a directive announced in August that requires 50 percent of electricity to come from renewable sources by 2030, and his further pledge on Tuesday to achieve 100 percent of the state’s electricity needs from renewable sources.

The goals announced by the governor mirror those made by the East Hampton Town Board in 2014, when it voted to meet its electricity needs through renewable sources by 2020, and to meet the equivalent of all energy consumption, including heating and transportation, with renewable sources by 2030.

“I’m pleased by the governor’s support for Deepwater Wind’s proposal to provide energy to the South Fork,” Supervisor Larry Cantwell said yesterday, “and his commitment to renewable energy statewide. I think the town and state are aligned on this issue.” Mr. Cantwell said town and state officials have encouraged one another to move toward renewable energy sources in recent years “because we think it’s important to the environment, especially in a coastal area like ours.”

The supervisor conceded that the town could miss its goals by “a year or two. . . . We’ve got a long way to go with moving the rest of our energy consumption to renewables, when it comes to fuel, vehicles, and heating,” he said. The town is exploring adding more solar panels and energy-efficient lighting to municipal buildings, and electric vehicles to its fleet. The goal to meet all energy consumption with renewables by 2030 is “attainable within a reasonable period,” he said, but “we have a lot of work to do, and we have to be persistent in our day-to-day decision making.”

Gordian Raacke, executive director of Renewable Energy Long Island, which is based in East Hampton, said in a statement yesterday that Governor Cuomo’s commitment to offshore wind “could make Long Island a regional hub for offshore wind development, creating jobs and attracting significant industry investments, while allowing the state to reach its renewable energy mandate.”

“It is really exciting to see that Governor Cuomo has now committed to shift to 100- percent renewable energy sources as our town did in 2014,” Mr. Raacke said. “East Hampton was the first town in the State of New York to set such a bold goal, and the idea seems to be contagious.”



LongIsland.com

Groups Applaud Governor Cuomo on Commitment to Offshore Wind

PRESS RELEASES, LOCAL NEWS, NATURE & WEATHER

BY LONG ISLAND NEWS & PR PUBLISHED: JANUARY 11 2017

Governor Cuomo announced to a Long Island audience that New York is committed to building 2,400 megawatts of offshore wind power by 2030 – enough to power 1.25 million homes.



Long Island, NY - January 10, 2017 - In the most recent of the six State of the State addresses scheduled throughout the week, Governor Cuomo announced to a Long Island audience today that New York is committed to building 2,400 megawatts (MW) of offshore wind power by 2030 – enough to power 1.25 million homes. The Governor also pledged his support for New York’s first, and the nation’s largest, offshore wind project off the east end of Long Island.

In December, over 250 local, state and national organizations called on the Governor to make a commitment to a large-scale, long-term offshore wind program, hailing it as an essential first step in making Long Island a regional industry hub that could spur thousands of jobs, manufacturing and economic development opportunities. A significant commitment to offshore wind power is also critical for meeting Governor Cuomo's goal of ensuring 50 percent of New York's energy comes from renewable sources by 2030.

Following the Governor's announcement today, the Long Island Power Authority (LIPA) is expected to formally approve the contract for New York's first offshore wind project later this month. The 90 MW, 15-turbine South Fork Wind Farm will produce enough energy to power about 50,000 Long Island homes by 2022. LIPA also has the opportunity to secure at least 200 more MW of offshore wind through their Island-Wide renewable energy procurement expected later this year.

In response to today's announcement, a coalition of organizations provided the following comments:

"Offshore wind has tremendous potential in the Empire State. We applaud Governor Cuomo for making a long-term, large scale commitment to this pollution-free resource," Heather Leibowitz, Director of Environment New York said. "This commitment to offshore wind helps ensure that New York can reap the benefits of this clean, renewable resource right off our coast. A strong commitment to offshore wind sets New York on a path to achieve 50 percent clean energy by 2030 on the way to 100 percent renewable energy."

"We applaud Governor Cuomo for listening to New Yorkers and committing to large-scale, long-term offshore wind in New York and moving New York's first offshore project forward," Lisa Dix, Senior New York Representative for the Sierra Club said. "These actions are not only the biggest commitments to offshore wind in the nation, but also a historic step forward in securing Governor Cuomo's legacy as a national climate leader, creating thousands of new jobs, and securing his goal of powering New York with 50 percent renewable energy by 2030."

"With this week's announcement that the Indian Point nuclear facility will be closing by early 2021, it makes more sense than ever to take advantage of the vast offshore wind resources off Long Island," Kit Kennedy, director of NRDC's Energy & Transportation program said. "By committing to scale up clean offshore wind power, Governor Cuomo is taking concrete action to ensure that Indian Point's power is replaced with safe, zero-carbon energy."

"Governor Cuomo's bold commitment to harvest New York's abundant offshore wind power could make us a regional hub for offshore wind development, creating jobs and attracting significant industry investments, while allowing the state to reach its 50 percent renewable energy mandate," Gordian Raacke, Executive Director of Renewable Energy Long Island said.

"Governor Cuomo made history today with the largest state commitment to offshore wind power, continuing the undeniable, bipartisan momentum building along the coast to tap into this booming global industry," said Catherine Bowes, Senior Manager at National Wildlife

Federation. “This bold leadership is precisely what’s needed to launch offshore wind power for New York that can deliver thousands of jobs, ensure a local supply of clean power right where it is needed and reduce pollution threatening both people and wildlife. We applaud Governor Cuomo for moving the state’s first offshore wind project forward and taking this critical step to ensure that responsibly developed offshore wind power plays a major role in New York’s energy future.”

“CCE applauds Governor Cuomo for his commitment to advance offshore wind and to fighting climate change,” Adrienne Esposito, Executive Director at Citizens Campaign for the Environment said. “Today’s commitment to offshore wind cements Governor Cuomo’s position as a renewable energy champion and ensures New York will continue to move forward with projects that mitigate climate change, stabilize the rate base and protect our coastal communities while providing good, local jobs for Long Islanders.”

“Wind energy is a long time coming. I am delighted that the Nassau and Suffolk Building and Construction Trades will get to help build this industry and put our 59,000 strong members to work,” Richard O’Kane, President, Nassau and Suffolk Building and Construction Trades said.

“Ironworkers local 361 applaud the Governor’s commitment to offshore wind renewable energy and the Long Island workforce,” Matthew Chartrand Business Manager, Ironworkers Local 361 said.

“The Governor’s offshore wind announcement was an important step in the right direction. We must act now to combat global climate change and an aggressive timeline is necessary to implement and build offshore wind and other renewables,” Lisa Tyson, Director of the Long Island Progressive Coalition said.

“Governor Cuomo’s commitment to 2,400 MW of offshore wind power by 2030 makes New York a national leader of this new clean energy industry,” Liz Gordon, Director of the New York Offshore Wind Alliance said. “The Governor’s powerful endorsement will spur billions in investment, create thousands of skilled jobs, and generate clean, affordable and reliable electricity for New York.”

“Offshore wind can be Governor Cuomo’s legacy. Few initiatives will have a more positive, or multigenerational impact, than capturing the clean, renewable energy blowing across New York’s shores,” Conor Bambrick, Air & Energy Director at Environmental Advocates of New York said. “The practical benefits are also immediate – a robust program can keep his climate and clean energy goals on track while mitigating the impact on the energy grid from Indian Point’s closure. We encourage the Governor to use this commitment as a springboard for making New York the world’s offshore wind leader.”

"Smart for the climate, smart on the economics, this is a significant commitment to harnessing Long Island's abundant offshore wind energy and a big step towards powering the region sustainably," NYPIRG's Russ Haven said.

“The communities of Far Rockaway and Rockaway Parkway are looking forward to the new

jobs, in a new sector like offshore wind,” Alexis Smallwood, Community Outreach Coordinator, Rockaway Wildfire said. “We have fought hard for these new jobs which will help benefit those who live in Far Rockaway. We hope to save the environment and the ecosystem. Thank you, Governor Cuomo, for your leadership in offshore wind.”

"We commend Governor Cuomo for committing to the development of a large-scale offshore wind farm in New York," Ling Tsou, Co-founder of United for Action said. "We urge Long Island Power Authority to approve the plan to develop New York's first ever wind farm without any further delay. An offshore wind farm will not only reduce greenhouse gas emissions and the use of fossil fuel and nuclear power for New York, it will also generate jobs and stimulate local economy in the growing renewable energy sector. Given the urgency of climate change, building an offshore wind farm to deliver large-scale renewable energy cannot come soon enough."

"We are encouraged that Governor Cuomo is committing New York State to an energy future that includes offshore wind," Elizabeth Broad, Outreach Director of New Yorkers for Clean Power said. "By prioritizing and expediting the development of this important clean energy resource, we can set an example for the rest of the nation by investing in a new industry, creating jobs and generating electricity without climate impacting greenhouse gas emissions."

"We are pleased to see the state taking this important step toward a renewable energy economy," Kim Fraczek and Patrick Robbins, Co-Directors of Sane Energy Project said. "By agreeing to this commitment, the Governor is standing with the countless union workers, environmental advocates, and communities all over the state who are calling for offshore wind power, and we look forward to working with the Governor's office toward an eventual commitment from our utility sector to purchase 5,000 megawatts of electricity from offshore wind."

Environment New York is a state-wide, citizen-based environmental advocacy organization working for clean air, clean water and open space.



[Newsday](#)

Politics LONG ISLAND

Gov. Cuomo urges LIPA to OK wind farm 30 miles off Montauk

Updated January 10, 2017 8:16 PM

By Mark Harrington mark.harrington@newsday.com



Deepwater Wind's turbines off Block Island, R.I., on Aug. 15, 2016. LIPA selected a project by Deepwater Wind in July. Photo Credit: AP / Michael Dwyer

Gov. Andrew M. Cuomo on Tuesday urged LIPA to approve an offshore wind farm 30 miles from Montauk and said the state would commit to other offshore projects that would place hundreds of turbines in federal waters off the Long Island coast by 2030.

The governor, in his regional State of the State address at Farmingdale State College, said the time was right for offshore wind and the LIPA project would be economical and far from view.

“We have to do big things in renewable energy to get that cost of power down on Long Island,” Cuomo said. “Offshore wind farms work. They can be done right. . . . They don’t have to be an eyesore.”

Cuomo first threw his support behind the LIPA 15-turbine project in a statement in July, when the authority selected a project by Deepwater Wind and declared it to be the nation’s largest. (Several other proposed projects, including one off Jones Beach that the state unsuccessfully bid on, would be considerably larger than the LIPA project.)

LIPA’s board had been scheduled to vote on the Deepwater project in July, but the state asked for a postponement while it prepared a draft blueprint for offshore wind. That report was released in October.

LIPA chief Tom Falcone, at the governor’s address, said the board is expected to take up the contract, which is in the final stages of negotiations, later this month. “We’re very close to concluding negotiations,” he said.

Falcone said Cuomo’s broader proposal for 2,400 megawatts of wind power was feasible. “We’ve made a commitment to clean energy,” he said. And wind power is “now something that’s cost-competitive with other resources.”

Not all are on board with offshore wind. LIPA has said the wind farm and other grid improvements needed for the South Fork would add about \$2.48 to customer bills when it’s completed. At the all-electric Leisure Village in Ridge on Tuesday morning, angry seniors protesting LIPA/PSEG’s 5.4 percent bill increase this month urged Cuomo to focus instead on reducing bills.

A megawatt of offshore wind power can provide enough energy for around 320 homes, according to the American Wind Energy Association, an industry group in Washington, D.C.

“I understand he’s trying to do a wind farm to subsidize and assist vacationers on the South Fork,” said Carole Leonard, president of the Leisure Village Association. “What about the full-time people who live in the community? We have residents who can’t put food on their table. It’s just gotten insane. Let’s figure out what we’re going to do with [PSEG Long Island] and the rates, and then go on to other things.”

Deepwater Wind is proposing another offshore project to LIPA as part of a second green-energy bid request, a project adjacent to the 90-megawatt project that would bring an additional 210 megawatts of wind power to Long Island. The wind-energy area for both projects is off the coast of Rhode Island, between Block Island and Martha’s Vineyard.

Jeff Grybowski, chief executive of Deepwater Wind, said the company plans to begin needed marine survey work for the LIPA 90-megawatt project in the spring once LIPA’s board approves it.

Kevin Law, president of the Long Island Association and a former LIPA chief, said the bigger commitment to wind could prove helpful now that the state has reached an agreement to shutter the 2,000-megawatt Indian Point nuclear power plant.

But Suffolk Comptroller John Kennedy said the state should only pursue the aggressive wind-power goals if it means stable or lower bills.

Gordian Raacke, executive director of Renewable Energy Long Island, said Cuomo's commitment to 2,400 megawatts of wind energy "exceeded my expectations. It's a big step forward."

East Hampton Patch

[East Hampton Patch](#)

Cuomo Calls on LIPA to Approve Offshore Wind Project Southeast of Montauk

"It took 20 years of advocating for offshore wind, but we finally got to 'yes!'" — Adrienne Esposito, Citizens Campaign for the Environment.

By [Lisa Finn \(Patch Staff\)](#) - January 10, 2017 5:09 pm ET



MONTAUK, NY — It was a win for environmentalists as New York State Governor Andrew Cuomo called on the Long Island Power Authority Tuesday to approve a 90-megawatt offshore wind project 30 miles southeast of Montauk.

The project will be the nation's largest offshore wind farm and will not be visible from Long Island's beaches, Cuomo said.

The governor also proposed a commitment to develop up to 2.4 gigawatts of offshore wind power by 2030, enough power generation for 1.25 million homes and the largest commitment in United States history, he said.

An Offshore Wind Master Plan will outline the plans and next steps and will be completed by the end of 2017, Cuomo said.

"New York's unparalleled commitment to offshore wind power will create new, high-paying jobs, reduce our carbon footprint, establish a new, reliable source of energy for millions of New Yorkers, and solidify New York's status as a national clean energy leader," Cuomo said.

"The Offshore Wind Master Plan will establish a bold strategy to harness this untapped resource in New York and provide a new source of energy to power a brighter, greener future for all," he added.

Offshore wind, Cuomo said, is critical to meeting the goals outlined in the Governor's Clean Energy Standard to meet 50 percent of New York's electricity needs with renewable sources by 2030.

Cuomo also directed the Department of Environmental Conservation and the New York State Energy Research and Development Authority to undertake a comprehensive study to determine the "most rapid, cost-effective, and responsible pathway" to reach 100 percent renewable energy statewide.

New York State "will engage academic partners to draw upon existing clean energy research and seek input from other key stakeholders," he said.

The 90 megawatt development 30 miles southeast of Montauk, "is the first step toward developing an area that can host up to 1,000 megawatts of offshore wind power. In an indication of offshore wind's growing attractiveness as a power source, the proposed project is the most innovative and least costly way to meet the growing power needs of the South Fork and to provide cleaner energy for Long Island," Cuomo said.

The Long Island Power Authority has indicated that contract negotiations are close to final, and the project will be voted on at its January meeting, Cuomo said.

Sid Nathan, LIPA Director of Communications, told Patch that LIPA is not providing any further comment at this time.

Cuomo called on LIPA "to vote to approve the project and ensure it is developed responsibly and cost-effectively for all stakeholders," a release said.

According to Cuomo, "With some of the most favorable conditions for offshore wind in the United States, the coast of Long Island has the potential to bring an enormous amount of renewable energy, and substantial job creation and economic development benefits to all New Yorkers."

Of the Offshore Wind Master Plan, a release said, "The plan will establish a commitment for the responsible development of New York's offshore wind resources in ways that benefit electricity customers and protect the environment. Offshore wind will protect the environment by reducing emissions and spur new investments in infrastructure and manufacturing, creating high-quality jobs across the state."

New York State will ensure that the visual impacts of offshore wind turbines will be minimized through appropriate siting, and new offshore wind turbine foundation technologies will allow construction in deeper water, further offshore and out of sight lines from the coast, Cuomo said.

Environmentalists applauded the news Tuesday. "It took 20 years of advocating for offshore wind, but we finally got to 'yes!'" said Adrienne Esposito, executive director, Citizens Campaign for the Environment. "Wind power is no longer a technology for tomorrow but rather it's a technology for today.

Offshore wind power provides us a real foundation for reaching our renewable energy goals and transitioning away from fossil fuels, she added.

"CCE applauds Governor Cuomo for his commitment to advancing offshore wind and to fighting climate change. Today's commitment to offshore wind cements New York's position as a renewable energy leader and ensures we will continue to move forward with projects that mitigate climate change, stabilize the rate base and protect our coastal communities while providing good, local jobs for Long Islanders. There are moments in time when one decision can change our future for the better — this is one of those moments. Today's announcement gives us cause for celebration," Esposito said.

By 2020: Ocean Windmills Will Power the Hamptons



CARTOON BY MICKEY PARASKEVAS

DECEMBER 11, 2016 BY DAN RATTINER

There were two important developments in the news last week that were of great importance to the Hamptons. One is that our power supplier, PSEG Long Island, predicts there might be power brownouts next summer. With their current setup, they are predicting they might fall 8 megawatts short at peak demand if, for example, on a hot day everyone were to turn on their air conditioners at one time. As a result, they are bringing out two portable power generators on the backs of tractor trailer trucks to the East End. One will be parked at the Amagansett power station by the railroad station, and the other will be in Montauk at the power station on Industrial Road. If an overload develops somewhere at one or the other power station, they will be turned on. Otherwise they sit quietly. These generators run on compressed gas, which, a spokesman says, is better for the environment than the big diesel-run generators now in use.

Interestingly, there is a power surplus on the western end of the island. Power needs remain steady, but fuel saving measures are in effect. These measures are also in effect in the Hamptons, but the continued development of the East End's oversized mansions brings a greater need for more electricity. It doesn't help, for example, if a couple comes out to their 10,000-square-foot McMansion for the weekend, turns on all the lights and then leaves on Monday with a computer

system that continually turns lights on and off all week to make the place look occupied to potential burglars.

It was originally thought possible, according to East Hampton Supervisor Larry Cantwell, to borrow some of the power from the west to handle the shortage here, but overhead lines in place that would carry this power are not adequate to handle it, and the general public does not take kindly to building more.

The second item in the news last week seems to solve the problem of the first, although it would take several years to put in place if approved.

Deepwater Wind, a New England company, is meeting with LIPA, which oversees the electricity PSEG provides us, to consider a contract to build new offshore turbines capable of delivering some 90 megawatts to us, enough to power 50,000 homes, which is practically all the homes here.

Deepwater Wind has already constructed five enormous wind turbines out in the ocean three miles just southeast of Block Island. They are clearly visible from Block Island and it is said you can see them from Montauk on very clear days, if you are on a hill or standing on your tiptoes. Before the end of 2016, these turbines are scheduled to be turned on and, with their link-up undersea, will begin providing 30 megawatts of power to 12,000 homes in Block Island and Rhode Island. Could we tap into that wind? Get power from the east rather than the west? The answer is yes. And the project might be ordered as soon as this upcoming meeting.

The plan on the table would reportedly have them build a South Fork Wind Farm of 12 turbines, 30 miles off Montauk and 15 miles southeast of Block Island. These turbines will not be visible from Long Island, they say. Each turbine will provide 8 megawatts of power, so the total would be nearly 100 megawatts, which is enough to provide power to almost every home existing in the Hamptons. Cables would come underwater to shore and continue underground to the power stations in Montauk, Amagansett and East Hampton. You'd not see them, either. A bonus would be that when going underground from Amagansett to East Hampton, PSEG should be able to take all the giant utility poles down that carry the power now, because those cables could also be put underground into the trenches dug for the wind farm cables. Maybe the utility lines along Amagansett's main street could go there, too.

Deepwater has a lease on about 250 square miles of sea bottom south of Long Island, Block Island and Martha's Vineyard. Deepwater's wind farm going live will be the first offshore wind power operation in the country. Wind is a gift from God. This helps save the planet. I cannot imagine anyone objecting to this. But I'm sure some people will come up with something.

August 8, 2016



The first turbine in the Block Island Wind Farm is installed Thursday. Foundations for other turbines can be seen in the line.

BY MARK HARRINGTON
mark.harrington@newsday.com

The winds of change

NY readies energy blueprint that could include 1,430 turbines in ocean

New York State is set to release a draft blueprint for its offshore wind-energy ambitions in a matter of days or weeks, a plan that could ultimately result in 1,430 power-producing turbines spinning in federal waters from New Jersey to Rhode Island, including two potential sites directly off Long Island.

The New York State Energy Research and Development Authority on Friday said the draft blueprint will "describe the benefits of developing New York's offshore wind potential and outline how the state will collect and document feedback." Stakeholders include consumers, utilities, environmental groups, coastal communities, commercial fishermen and the maritime industry, the authority said. It said the blueprint will be released "this month."

A final Offshore Wind Master Plan will provide "strategic options to support properly sited offshore wind development to combat climate change," it said.

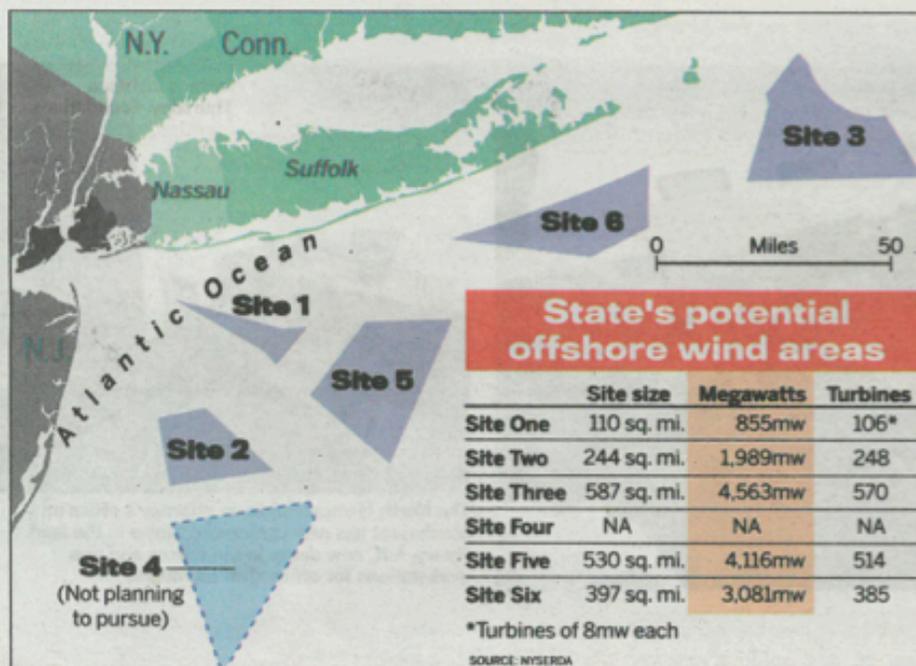
While NYSERDA wouldn't discuss the blueprint directly last week, the state telegraphed its ambitions for offshore wind energy in a cost analysis released as part of its recently approved Clean Energy Standard, which seeks to derive 50 percent of state energy from renewable resources by 2030.

As previously reported in Newsday, the April report identified six potential wind energy areas for that study, five of which it determined as the "closest, most advanced and/or most representative of the wind-resource potential."

In all, the state said, a maximum of 11,440 megawatts of wind power can be garnered from the sites off New York. Each megawatt of offshore wind energy powers about 320 average homes, according to the American Wind Energy Association, a trade group. The state estimates the cost for wind is about \$5.2 million a megawatt, a figure that could decline gradually as more farms are built.

The state analysis laid out an aggressive building schedule for offshore wind farms, starting with 50 turbines in the first year and ramping up each year to 240 by year 11.

NYSERDA's April cost analysis included a potential site 12



miles from the coast of the South Fork, where the state indicated a possible 3,081 megawatts of power could be harnessed from some 385 turbines. Officials in Southampton and East Hampton towns have already expressed disfavor with such a site, although they favor another proposed by Deepwater Wind some 30 miles from Montauk Point in waters off Rhode Island.

An NYSERDA spokeswoman emphasized, "No decisions on offshore wind development areas will be made without extensive input from local communities, the commercial fishing and maritime industries, environmental advocates and other key stakeholders."

The state may not propose wind farms on all areas of the map, NYSERDA said, and may consider other areas entirely.

Connection points

The turbines would deliver power through connection points throughout downstate New York. Undersea cables analyzed by the state could connect at two LIPA transmission connecting points at the Shore Road plant on Hempstead Harbor in western Nassau. Other connection points reviewed include one in Westchester owned by Con Edison, an Astoria connecting point owned by the New York Power Authority, and another on Brooklyn's Gowanus Canal owned by Con Edison.

The study described the Hamptons wind farm and an-

other about 20 miles off the coast of central Suffolk as the "most representative" of the five sites studied because of their better offshore wind resources and "mid-depth" water. Generally the deeper the water and the farther away the turbines, the more expensive a wind farm becomes.

Two proposals — a LIPA deep-water project and NYSERDA-led plan — are already moving forward. LIPA trustees had been scheduled to vote on a wind-energy proposal from Deepwater Wind that proposes to place 15 turbines some 450 feet high in waters south of Rhode Island. LIPA staff is expected to recommend the project, and trustees are expected to vote to authorize LIPA to negotiate a contract with Deepwater by early next year.

But LIPA has been mum on the topic since NYSERDA requested its trustees delay their vote last month to await the blueprint. LIPA spokesman Sid Nathan said the authority is awaiting release of the state blueprint, and deferred to NYSERDA. Also, he said, "LIPA cannot comment on details of the generation project which is still under negotiation."

While studies, approvals and construction generally require up to seven years to complete, LIPA has previously said it expects to "expedite" the process and have the Deepwater wind farm up and running by the end of 2022. A Deepwater official declined a request for interviews.

The developer last week reached a milestone by installing turbine blades on the first U.S. offshore wind farm off the coast of Block Island.

Variances in production

The proposed 90-megawatt Deepwater wind farm, if approved, will produce somewhat less than that amount of power, both because of the intermittent nature of wind and because of a loss of power that comes from sending it over a 30-mile-plus cable, a phenomenon known as line loss. LIPA declined to specify the amount of line loss of the Deepwater project, suggesting it was one of the details that remained "under negotiation."

Earlier this year, NYSERDA commandeered a separate project that had been initiated by LIPA in 2008 to build up to 700 megawatts of wind power off the coast of Long Beach. The federal government is expected to begin a lease auction for that 81,000-acre wind-energy area later this year, and NYSERDA will be the state's lead bidder. At least two other companies have expressed an interest in bidding.

If it wins, NYSERDA has said it will hold an auction of its own to contract out construction of the wind farm, while the state itself conducts the numerous studies required for approval.

New York State already has 1,014 land-based wind turbines, mostly upstate, providing 1,749 megawatts, according to the wind energy association.

[Newsday](#)

Editorial OPINION

LIPA on verge of leading nation wind power deal

Updated August 6, 2016 6:00 AM

By The Editorial Board



This turbine is similar to those being proposed for waters off the South Fork. This turbine is in the Block Island Wind Farm. Photo Credit: Deepwater Wind

THE BOTTOM LINE

- The wind farm under contract to LIPA would be the largest in the nation to harness the power of ocean wind.

The Long Island Power Authority is on the cusp of making the most significant decision about generating electricity with noncarbon fuel since it shut down the Shoreham nuclear power plant in 1992.

LIPA wants to green-light the building of 15 large wind turbines in the Atlantic Ocean that will deliver a net of 75 megawatts of power to the South Fork, one of the few spots on the Island where demand is increasing. It's a small amount of generation, compared with Shoreham, which was projected to deliver 540 megawatts, but the wind farm under contract to LIPA would be the largest in the nation to harness the power of ocean wind.

LIPA being in the lead for anything other than bad news is difficult to comprehend, but adding wind power to its already substantial residential solar program is an impressive achievement.

Despite the postponement of a vote two weeks ago, LIPA trustees are expected within weeks to approve the start of negotiations with developer Deepwater Wind. The turbine project, located 30 miles east of Montauk and 19 miles south of Block Island, will not be visible from land. It already has all federal approvals and is supported by East End officials. An undersea and underground cable would connect to an existing substation in East Hampton, causing little of the usual disruption of building transmission lines.

The Deepwater Wind option was one of 21 submitted in response to a PSEG-Long Island request for proposals to solve the energy deficit on the South Fork.

Other proposals were simply nonstarters, such as burning biofuels, which would mean frequent deliveries of fuel on large trucks, as well as dirty emissions. A solar farm would have required the purchase of 350 acres, not easy to find or afford in the Hamptons.

While the final contract hasn't been negotiated, the project is expected to cost all ratepayers \$1.20 a month when it comes online. That's a rate LIPA chief executive Thomas Falcone said was competitive with the cost of power from gas-fueled plants, in part because there are no expensive school taxes or other payments to local governments that come with land-based power plants. The project is considerably cheaper per megawatt than a much-larger proposal by the same developer that LIPA rejected because of the high cost in 2014.

LIPA's turbines would be built in the vast Rhode Island-Massachusetts wind-energy zone where the nation's first offshore turbine was mounted on a steel platform only a few days ago. The field's first project, with five turbines generating 30 megawatts, will deliver power to Block Island and Rhode Island via undersea cables by the end of this year. LIPA estimates a megawatt of wind power is enough to power roughly 465 homes.

It's the early stage of a massive ocean field leased by Deepwater Wind that is 256 square miles, or 163,840 acres, an area that could eventually host turbines producing about 4,500 megawatts.

It's so large that in theory it could power most of Long Island, where peak use so far this year is 5,400 megawatts.

Meanwhile, LIPA is looking west to Long Island's South Shore to launch an even bigger wind project. It could generate a sizable amount of megawatts by 2024.

This big push for offshore wind is a major part of Gov. Andrew M. Cuomo's ambitious energy policy, and if he succeeds, it would be one of his most measurable and consequential legacies.

The state Public Service Commission last week approved a Clean Energy Standard. It calls for 50 percent of all electricity used in the state to come from wind and solar generation, as well as hydroelectricity from Canada, by 2030. Offshore wind is key to reaching that goal.

The standard also supports continued nuclear generation upstate as part of the portfolio. Those plants and the hydropower already generated at Niagara Falls are the reasons why New York already ranks among states with the lowest greenhouse gas emissions.

In the next few weeks, the New York State Energy Research and Development Authority is expected to release an initial blueprint for offshore wind. LIPA's South Fork project is already included. NYSERDA will bid later this year for an 81,000-acre site, described as having the potential to be the Saudi Arabia of renewable fuel, along the outer continental shelf, south of Rockaway peninsula.

Should NYSERDA win the lease in the upcoming auction by the federal Bureau of Ocean Energy Management, it will conduct a competition among developers for the construction of wind farms to provide power to LIPA and Consolidated Edison.

This project already has some considerable obstacles. The triangle-shape field, at its tip, is only 12 miles south of Long Beach and visible on the horizon. NYSERDA would be wise to develop areas farther from shore. However, the Coast Guard recommends that the turbines not be built too far away, in busy shipping lanes. Environmental reviews are sure to raise concerns, too.

But those are questions for another day, problems that are, after all, about how to best harness a plentiful and clean natural resource that over time might reduce the future cost of electricity.

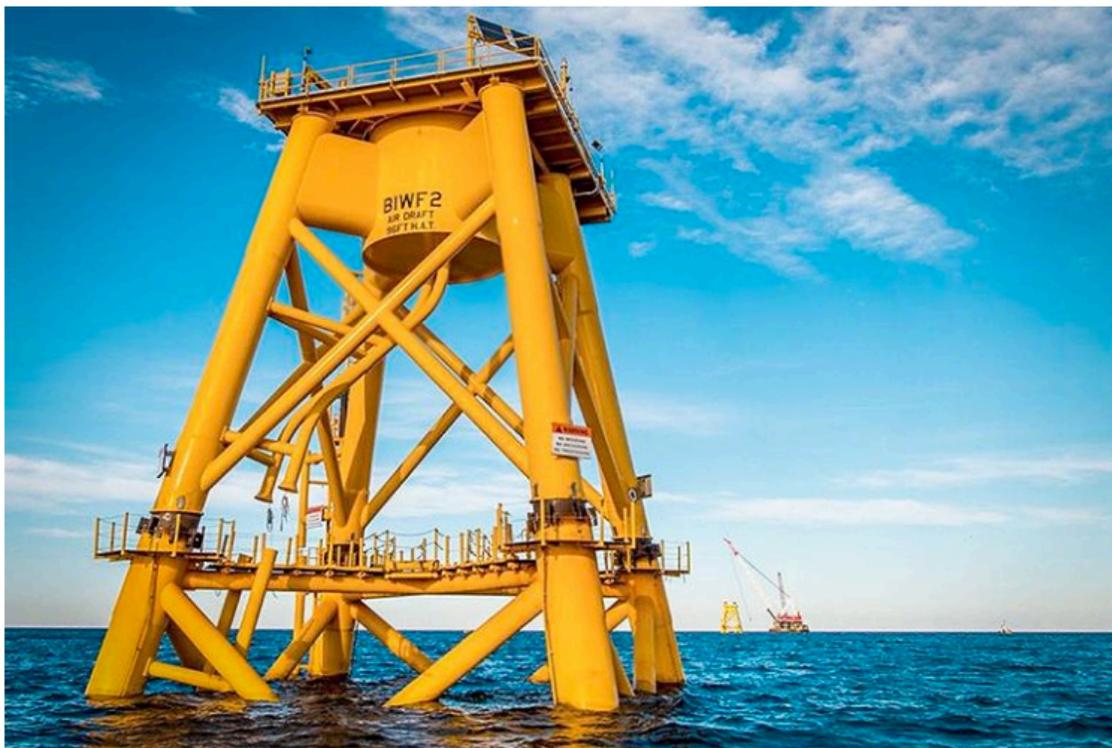
That's a powerful place for Long Island to be.

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New York to Make Good on the Promise of Offshore Wind

The state hopes a new project will finally begin to tap an enormous source of renewable energy.



Turbine support at Rhode Island's Block Island Wind Farm, the first commercial offshore wind power plant under construction in the United States. (Photo: Deepwater Wind)

JUL 20, 2016



Emily J. Gertz is an associate editor for environment and wildlife at TakePart.

[Bio](#)



New York is close to approving the state's first offshore wind farm, hoping to sidestep the controversies that have left other East Coast projects in limbo and the United States' vast offshore wind capacity untapped.

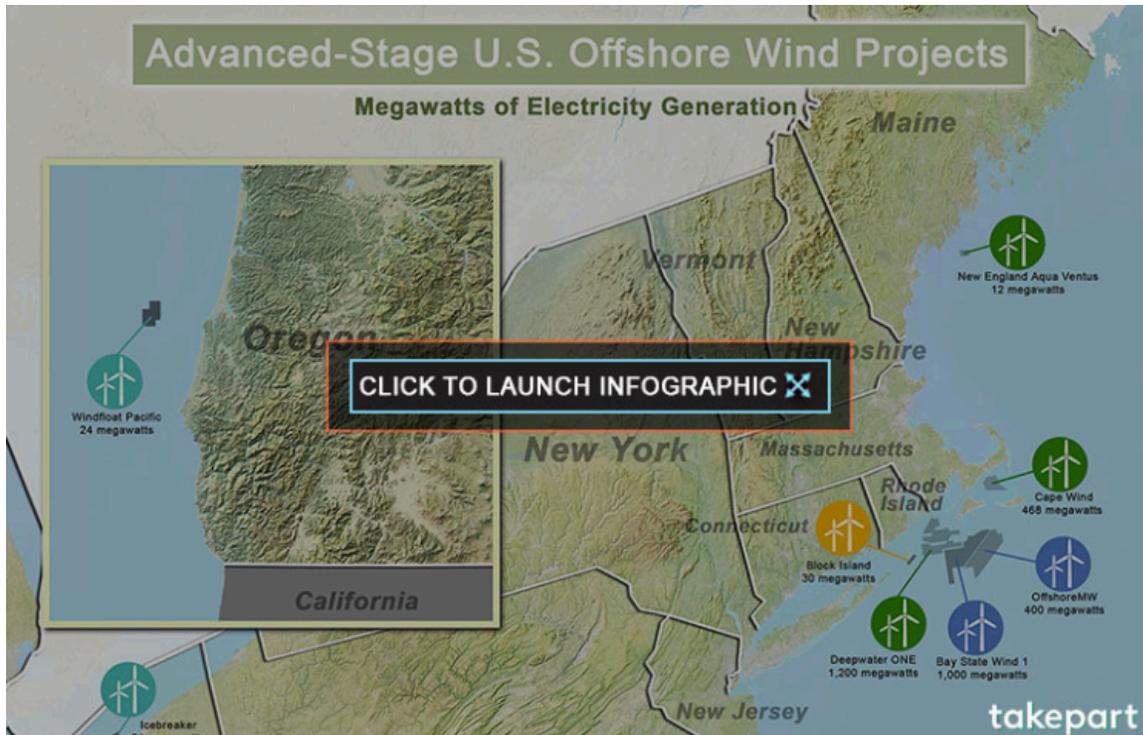
The 15-turbine plant—planned for a spot about 30 miles off Montauk, the easternmost town on Long Island's South Fork—would generate 90 megawatts of electricity, enough energy to power about 17,000 homes.

New York Gov. Andrew Cuomo [threw his support](#) behind the South Fork project last week, saying in a statement that it “would demonstrate New York's leadership on climate change and help achieve the state's ambitious goal of supplying 50 percent of its electricity from renewable energy by 2030.” The state plans to do that by increasing energy from hydroelectric, solar, biomass, and wind sources, aiming for a 40 percent cut in carbon emissions from the sector.

Renewables account for about 11 percent of New York's electricity supply, according to [the New York State Department of Environmental Conservation](#).

For now, however, state energy officials have asked the Long Island Power Authority's board of directors to put off the decision, according to [The Associated Press](#), pending the release of a comprehensive offshore wind plan for New York. That plan is likely to encompass a proposed federal wind-lease auction this year for 81,000 acres [sitting about 11 miles offshore](#) of western Long Island and New York City.

The nation's first major offshore wind project was supposed to have been Cape Wind, a 130-turbine, 468-megawatt plant first proposed more than 15 years ago for a site about five miles south of Cape Cod, in Massachusetts' Nantucket Sound. The project became mired in controversy and lawsuits as Cape Cod's wealthy residents objected to the prospect of wind turbines marring their multimillion-dollar views. In early 2015, with the project years behind schedule, two utilities canceled their power purchase agreements with Cape Wind's developer, putting its potential to attract financing in doubt.



By contrast, the South Fork proposal appears to [have local support](#), notably in the town of East Hampton, where the wind farm’s transmission lines would connect to land. The town council voted in 2014 to secure a completely carbon-free electricity supply by 2020, followed by transportation and heating in 2030. “The citizens of East Hampton have been visionary about that goal, very vocal in their support for offshore wind,” said Kit Kennedy, the director of the energy and transportation program for the Natural Resources Defense Council.

One advantage that South Fork has over Cape Wind: Its 30-mile distance from land means that the turbines will not be visible on the horizon.

“With a project like South Fork, there will be stakeholders who’ll have issues, and that is what the permitting and environmental process to come is all about—identifying potential impacts and seeing if they can be mitigated by design and other measures,” said Kennedy. “That’s the process for any type of big energy project. The scale and drama of the Cape Wind experience is just not going to be replicated here.”

The South Fork wind farm would be the first phase of an eventual 200-turbine, 1,000-megawatt plant, according to Deepwater Wind, the Providence, Rhode Island–based company that won the lease for the site in a 2013 federal auction. “Depending on permitting, construction could begin as early as 2019 with the project online by 2022,” company spokesperson Meaghan Wims wrote in an email.

Deepwater Wind is the first firm in the United States to take a commercial offshore wind power plan all the way from leasing to construction: a five-turbine, 30-megawatt plant in Rhode Island

waters called the Block Island Wind Farm. “We’ll soon be entering the final stages of construction on the Block Island Wind Farm. Construction will wrap up later this summer, and we’ll be up and running by the end of the year,” Wims stated.

The wind farm will supply Block Island’s 1,100 residents, who currently rely on a combination of diesel generators and high-cost power from the mainland, but it will barely tap into the United States’ estimated 4 million megawatts or more of potential offshore wind power.

The European Union, in contrast, operates 78 offshore wind farms, and six more are under construction, with a total capacity to generate 13,000 megawatts of electricity, according to the European Wind Energy Association.

“Europe’s been doing offshore wind for almost two and a half decades,” said Laura Small, a policy associate at the Environmental and Energy Study Institute, a Washington, D.C.–based think tank. “They have a strong supply chain, companies that are experienced, and policies to support it, and general EU targets as well as country targets for renewable energy, sometimes offshore wind targets specifically.”

Asia, China, Japan, and North Korea generated 776 megawatts from offshore wind power as of late 2015. “They have strong targets,” said Small. “China’s been installing wind like crazy—it has installed more straight-up wind in 2015 than Europe. I think there’s a lot of promise in Asian markets for offshore wind, particularly as Japan moves off nuclear.”

There are perhaps a dozen offshore wind power projects in a “more advanced stage of development,” mostly along the East Coast, according to Small. These include Deepwater Wind’s South Fork and Block Island plants, as well as one off the coast of Oregon, and one in Lake Erie in Ohio.

State-based targets for offshore wind—such as the one New York will likely announce soon—will help the industry advance, Small believes. But a clear federal policy would be the best boost. There’s been an attempt: Sen. Tom Carper from Delaware and Sen. Susan Collins from Maine introduced the Incentivizing Offshore Wind Act in 2015, “but it hasn’t gone anywhere,” she said.

To spur more activity without waiting for Congress, the Obama administration has been working with East Coast states to define Wind Energy Areas that don’t conflict with fisheries or coastal shipping, said NRDC’s Kennedy. Companies would bid to develop these areas at Bureau of Ocean Energy Management auctions—the same process used for offshore oil and gas leasing. “What offshore wind developers really need to proceed is a lease and a power purchase agreement to sell the power, which will make financing a sizable project easier,” she said.

At least one local commercial fishing group, the Long Island Commercial Fishing Association, opposes the South Fork offshore wind farm. “Make no mistake about it, the Town of East Hampton has sold out commercial fishermen,” [the group recently posted on its Facebook page](#) after a flurry of media attention to the proposal.

But environmentalists appear supportive. “On balance—and we’ve looked at this for 15 years or so—[fears of] impacts of wind power on marine mammals are overblown,” said Patrick Ramage, the director for global whale programs at the International Fund for Animal Welfare.

At the outset of offshore wind construction, when turbine supports are being attached to the seafloor, “you can hear the impacts of the pile driving as much as 40 miles away, and there is disturbance of marine mammals in the area,” he said. But the effect appears to be temporary, he said, while “obviously the move toward renewables is better for marine wildlife and the protection of the ocean habitat on which their lives, and ultimately our own, depend.”

“Each of the projects needs to be evaluated particular to that marine habitat and needs to go through an environmental impact statement,” he added. But “from exploration to extraction to combustion, fossil fuels are a far more serious threat.”



[Newsday](#)

Suffolk LONG ISLAND

LIPA to address South Fork power shortage with wind farm

Updated July 19, 2016 10:22 PM

By Mark Harrington mark.harrington@newsday.com



Long Island Power Authority Chief Executive Officer Thomas Falcone is seen with some models of offshore wind turbines at the utility's offices in Uniondale. Photo Credit: AP / Frank Eltman

LIPA will resolve a looming South Fork power shortage through an offshore wind farm, \$500 million in transmission-system upgrades, two large batteries and temporary gas-powered generators — at a cost to average ratepayers of around \$1.20 a month, officials said.

LIPA will ask its board of trustees to allow it to negotiate a contract to buy energy from a 90-megawatt wind farm to be built by Deepwater Wind 30 miles from Montauk Point, according to chief executive Thomas Falcone.

The state late Tuesday asked LIPA to postpone a board meeting scheduled for Wednesday and LIPA agreed.

Falcone declined to specify the cost of the contract, which he said could be finalized by sometime early next year. But he said the \$1.20-a-month cost for average customers when all the proposals are in place was the least expensive of several other proposals. The wind farm would be operating by December 2022.

At 90 megawatts, the Deepwater Wind farm would be considerably smaller than a 350- to 700-megawatt project LIPA has already proposed for the waters off Long Beach, which the New York State Energy Research and Development Authority recently took on as lead state agency to bid on a lease. The Deepwater project, in federal waters off Rhode Island, already has secured a lease.

The South Fork power recommendations, which LIPA will take up at a trustees meeting in Uniondale, follows months of analysis of dozens of proposals by PSEG Long Island and review by the state Department of Public Service.

The South Fork solution includes 8.3 megawatts of demand reduction, which offers incentives to customers to install special thermostats so the utility or a contractor can remotely adjust the temperature during peak-use periods.

Even as LIPA moves forward to negotiate a wind-farm contract, PSEG will begin a series of system upgrades that will help reduce bottlenecks and allow power from the proposed wind farm to flow westward on the grid when the East End doesn't need it. The cost of those transmission system upgrades, including four new underground cables and upgraded substations, is just over \$500 million by the time they're completed in 2026.

"With the transmission upgrades it [power from the wind farm] can be transported across the system," Falcone said. He said the plan will also require "temporary" fossil-fuel generators in East Hampton and Montauk until 2019.

The cost of the solutions is from \$67 million to \$90 million a year after the wind farm and other technologies are completed. The net customer bill impact is \$2.48 a month, though LIPA said the incremental bill impact is \$1.20 a month.

LIPA staff's selection of the wind farm drew praise from environmental groups such as the Sierra Club and Renewable Energy Long Island. Gov. Andrew M. Cuomo in a statement said he "strongly encourage[s] the trustees to once again demonstrate New York's leadership on climate change" in approving the wind farm.

Not all groups were pleased. Bonnie Brady of the Long Island Commercial Fishing Industry said, "I think LIPA is under a lot of political pressure to make things happen, but I think LIPA still has a duty to represent Long Island and our coastal fishing communities, and Long Island consumers who would be expected to pay much higher prices, for a feel-good measure that has nothing to do with the facts of industrialized offshore wind energy on our ocean waters."



Bloomberg

Largest U.S. Offshore Wind Farm Planned in New York Waters

by [Chris Martin](#)
[@cleantechchris](#)

July 14, 2016 – 12:36 PM EDT *Updated on July 14, 2016 – 1:23 PM EDT*



- ▶ Project off Montauk would produce 90 megawatts when complete
- ▶ Deepwater Wind selected to build its second offshore project

The Long Island Power Authority plans to approve a 90 megawatt wind farm off the coast of New York that would become the largest in the U.S. when completed.

Deepwater Wind LLC was selected to install 15 offshore turbines about 30 miles (48 kilometers) east of Montauk for a project that the utility's board expects to approve at a meeting on July 20, said Sid Nathan, a spokesman for the state-owned utility, which is operated by Public Service Enterprise Group Inc.

Offshore wind has been slower to advance in the U.S. than in Europe partly because of its higher costs and the prevalence of open land for cheaper sites onshore. Opposition from coastal communities has also held up projects including Cape Wind Associates LLC's long-delayed 468-megawatt wind farm off the coast of Massachusetts.

"This is the first step to developing the tremendous offshore wind resource off Long Island," Nathan said in an interview Thursday. "It will be Long Island's contribution to meeting Governor Cuomo's ambitious plan to reach 50 percent renewable energy by 2030."

Terms have not yet been determined, he said. The plan to build the offshore wind farm was first reported by the Associated Press, citing an interview with LIPA Chief Executive Officer Thomas Falcone. An agreement on pricing may be reached early next year and the wind farm could be completed as early as 2022. Europe's Lead More than 90 percent of the world's offshore wind capacity is installed in northern Europe, according to the Global Wind Energy Council. About 12 gigawatts of offshore wind was in service at the end of 2015, just 3 percent of the world's total installed wind energy. Deepwater Wind is building the first U.S. offshore wind farm off the coast of Block Island, a 30-megawatt project that's expected to produce power later this year. CEO Jeffrey Grybowski expects to see more U.S. offshore power plants in the coming years. "There's real momentum for offshore wind in the United States," he said in an e-mailestatement.



Region/State NEWS

The Latest: Governor praises offshore wind farm proposal

Updated July 14, 2016 1:48 PM

By The Associated Press

UNIONDALE, N.Y. - (AP) -- The Latest on plans for an offshore wind farm off Long Island (all times local):12:25 p.m.

New York Gov. Andrew Cuomo says a proposal for an offshore wind farm off eastern Long furthers his goal of supplying 50 percent of the state's electricity from renewable energy by 2030. He said he is strongly encouraging the Long Island Power Authority to approve the 15-turbine proposal when it meets next week. LIPA is awarding the project to a company already building the nation's first offshore wind farm near Block Island, Rhode Island. That 5-turbine project goes online later this year. The U.S. lags behind Europe and others in development of offshore wind energy. Many offshore wind farms in Europe are already producing hundreds of megawatts of power. Environmentalist Adrienne Esposito is also applauding the plans for an offshore wind farm. She calls it a "game-changer" toward tackling climate change. 10:35 a.m.

A New York utility says it plans to approve an offshore wind farm off eastern Long Island that would be the nation's largest. Long Island Power Authority CEO Thomas Falcone tells The Associated Press the utility's board of directors is set to approve a proposal next week for the construction of a 90-megawatt, 15-turbine wind farm 30 miles east of Montauk.

LIPA is awarding the project to a company already building the nation's first offshore wind farm near Block Island, Rhode Island. That 5-turbine, 30-megawatt project goes online later this year. The U.S. lags behind Europe and others in development of offshore wind energy. Many offshore wind farms in Europe are already producing hundreds of megawatts of power.

Falcone says the LIPA project could be finished as soon as 2022. This story has been corrected to show Long Island Power Authority will contract with company to purchase energy from wind farm, not construct it.

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World | Thu Jul 14, 2016 8:42pm EDT

Related: U.S.

Deepwater Wind proposes offshore wind power for New York's Long Island

Privately held wind power developer Deepwater Wind has proposed supplying Long Island with 90 megawatts of offshore wind energy, the company said on Thursday. The 15-turbine project from Deepwater Wind, builder of the first offshore wind farm in the United States, would become the largest in the country when completed, the company said. It said that depending on permitting, construction could start as early as 2019 with the project commencing operations in 2022.

The Long Island Power Authority (LIPA) is expected to officially vote on the proposal next week, the company said in an email. New York State Governor Andrew Cuomo said in a statement that at a meeting next Wednesday, the LIPA Board of Trustees would consider advancing the development of the wind farm.

"Our project is not just the best site for offshore wind in the country, it's also the right solution to meet the South Fork's energy demands in a clean and cost effective way," Deepwater Wind Chief Executive Officer Jeffrey Grybowski said in a statement. (Reporting by Swati Verma in Bengaluru; editing by Grant McCool)

June 29, 2016

Changing Wind Means East Hampton Town's Energy Goals Within Reach



Construction is ongoing at Deepwater Wind's Block Island wind farm.

By Stephen J. Kotz

Two years ago, when the East Hampton Town Board adopted an ambitious plan to provide all of the town's electricity through renewable means by 2020, it sounded like the ultimate in pie-in-the-sky platitudes.

But if the Long Island Power Authority approves Deepwater Wind's revised plans for a \$700 million offshore wind farm off Montauk when it awards a number of South Fork-based alternative power generation plans to contractors next month, the town could be well on its way to meeting that goal.

“At the time, we adopted it, there were a lot skeptics,” said East Hampton Town Supervisor Larry Cantwell. “Even those who supported it knew it was an ambitious goal, but sometimes you have to be ambitious if you want to get something done.”

Mr. Cantwell said he was optimistic Deepwater's latest proposal for a 15-turbine wind farm capable of generating 90 megawatts of power for East Hampton — enough to power the entire town for the foreseeable future — would win LIPA approval. In 2014, the company's plan for a more ambitious 35-turbine wind farm that would have served all of Long Island was not chosen, dashing hopes for a quick solution to a growing energy deficit on the South Fork.

But the town is also banking on other sustainable projects, from battery storage facilities that could provide a boost when the town needs electricity the most, to large-scale solar arrays, and a microgrid that would allow more efficient local control of electric distribution.

It is also asking its residents to explore solar for their own homes, get free home energy audits, which can help them shave their own electricity use and bills, and take other small steps from installing energy-efficient light bulbs and smart thermostats to reduce their energy use.

Reforming the Energy Vision

A lot has changed in the past two years. New York State has gotten on board with Governor Andrew Cuomo's Reforming the Energy Vision, a new policy that favors the production of renewable power on a local level. The state has also adopted its own goal of obtaining 50 percent of all power from renewable sources by 2030. The tide has seemingly turned in favor of a clean energy future.

“We dig holes to find fuel, transport it halfway across the world, set it on fire to produce energy, send it out over a transmission line and then we boil a kettle of tea with it,” said Gordian Raacke, the executive director of Renewable Energy Long Island, at a forum at LTV Studios in Wainscott dedicated clean energy and sponsored by his organization earlier this month.

That model, which has been in place since the Edison Illuminating Company built the first commercial power plant on Pearl Street in lower Manhattan in 1882, is slowly going the way of telegraphs and horse-drawn carriages and will be replaced with a decentralized and far more responsive way to provide electricity, according to Mr. Raacke.

“Decisions are moving from the utility's board room to the kitchen table or the town board room,” he said.

At the clean energy forum, David Daly, the president and CEO of PSEG — Long Island, said the cost of renewable energy is becoming competitive with traditional fossil fuels, despite the current low prices for both oil and natural gas.

While energy demand is moderating elsewhere in New York State and on Long Island in particular, it continues to grow on the South Fork. In fact, PSEG projects an 8-megawatt shortfall next year, with that deficit growing to 169 megawatts by 2030. That shortfall will eventually lead to brownouts on those hot and humid July and August days when the owners of all those big houses scattered across the East End turn on their televisions and computers, crank up the air conditioning, and run other appliances at the same time.

Mr. Daly said the existing transmission lines simply are not big enough to provide the power the South Fork needs. The answer, he said, is to build larger lines, which would be sure to bring out opponents, or work with East Hampton and Southampton to find appropriate sites for new power sources that don't necessarily belch out black smoke like the diesel generators now in use to help provide extra power at peak load times.

Other ways to meet the energy supply gap could be found in encouraging more homeowners to install rooftop solar panels, which Mr. Daly said had the potential to cut deeply into future energy shortfalls. Other sizeable savings could be made by ramping up demand response programs, in which electricity consumers enter into voluntary agreements with the utility to reduce their energy use — say, by allowing their thermostats to be adjusted remotely for several hours — during peak load times, to reduce the load on the grid.

“The stars are lining up, if you will,” said Mr. Cantwell. “I hope the powers that be can see that on the South Fork we want a non-traditional solution to our energy problem. The utilities recognize there is a lack of infrastructure to serve our needs and, they know we don't want any more major transmission lines.”

Depending on Deepwater

There have been missteps along the way. SunEdison, a company the town contracted with last year to build large solar arrays at three town landfill sites, filed for Chapter 11 bankruptcy in April. The fate of those projects remain in limbo. Mr. Cantwell added that the town has to do more to be more energy efficient in its own facilities as well.

Frank Dalene, a member of East Hampton's energy sustainability committee, who was chairman when it recommended the 2020 goals to the town board, said that given the constraints of the South Fork and the fact that transmission lines and power plants are overtaxed, “it is really important that some of our energy comes from the east. Now, it's all coming from the west. It takes the pressure off.”

Mr. Dalene conceded when the town established its original goal, “it relied heavily on Deepwater” and is still banking on the scaled back plan winning approval to meet its energy goal.

The new Deepwater project has a number of things going for it that make it more attractive, he said. Transmission lines would come ashore at Napeague, which would mean the energy produced by it could be effectively earmarked for East Hampton. Deepwater has also offered to bury the transmission line, which would run to substations in Amagansett and East Hampton as part of its project.

Clint Plummer, a vice president for development with Deepwater, which is based in Providence, Rhode Island, said the firm is cautiously optimistic. Offshore wind power is common in Europe — it was pioneered in Denmark — and increasingly popular in China. Japan is developing offshore wind farms to replace the Fukushima nuclear power plant, which was crippled by an earthquake and tsunami in 2011.

But until now, it has not been employed in the United States. That will change later this year, when a five-turbine wind farm the company is building off the coast of Block Island becomes operational.

“This is our third proposal for Long Island, and it’s the smallest one we have ever submitted,” Mr. Plummer said of the 15-turbine farm presented to PSEG and LIPA for review. “This one is most focused on the South Fork, and that’s important because the South Fork is the place where PSEG needs to find new sources of energy.”

Citing East Hampton’s strong environmental track record, he said, “If there was ever a place in New York State to show that offshore wind could be competitive with fossil fuel, this is the place.”



A rendering of a proposed lithium battery storage facility off Navy Road in Montauk, one of several alternative energy solutions being considered for East Hampton Town.

Alternatives

But there are other firms competing for LIPA's favor as well. AES Energy Storage, LLC, which is based in Arlington, Virginia, has proposed three lithium battery storage facilities, one off Navy Road in Montauk, one on Hardscrabble Court in East Hampton, and the third on Leecon Court in Southampton Village.

Tim Ash, the company's market director, said a battery storage facility simply draws electricity from the system at off-peak hours and releases it for use when demand is at its highest. It doesn't matter if the energy comes from a wind turbine, solar panel or diesel generator. It is an attractive alternative to PSEG, which would otherwise be hard pressed to deliver the electricity needed at peak times. Plus, they can provide a lifeline during power outages.

"The electric power industry is really at a tipping point," said Mr. Ash. "PSEG is asking how can we effectively pull from all these resources, and the South Fork is in a position to lead the way."

Dirk van Ouwerkerk, the lead partner of Anbaric Microgrid, speaking at the energy forum, said microgrids — essentially local management and control of electricity distribution — should also play a role. He likened the current system, in which energy is distributed through the state from Albany, to having air traffic controllers at John F. Kennedy International Airport control traffic at East Hampton Airport.

"By the time the power hits the South Fork, that control room has very little control over the grid," he said. "We have the opportunity to manage the peaks with local resources."

"This is real," Mr. Raacke said of the different proposals. "There are investors putting their money on this, and there are engineers drawing up plans showing it can be done."



[Crain's](#)

OPINION

June 16, 2016 12:01 a.m.

OP-ED

Why is wind power New York's future? Let us count the ways

The city has the most to lose from climate change—but the most to gain from a clean-energy mandate

By Sydney Ward

New York has been called the “Saudi Arabia of wind,” with offshore winds strong and steady enough to rival any in the world. Wind energy, especially offshore, has enormous potential to benefit New York businesses and to grow our economy. In fact, the state [plans to bid](#) for a federal lease to develop a 127-square-mile site in the Atlantic Ocean off Long Island, smoothing the way for lower-cost wind energy.

But to ensure wind plays a major role in our state’s energy production, the right regulatory structures and incentives must be written into the [Clean Energy Standard](#) being developed by the Cuomo administration. The business community and general public should insist that the new standard include efficiency benchmarks and require the rapid and massive development of offshore wind.

A major benefit of offshore wind is that it supplies the greatest amount of energy in the late afternoon, when electric usage surges. Turbines on the water can be larger and deliver more power than those on land and be situated far enough offshore to be nearly invisible. New York City, the state’s largest consumer of energy, is ideally located to benefit from this energy right in its backyard, reducing transmission costs. Moreover, the operating costs of wind are stable and predictable because the “fuel” is always free.

The economic benefits of offshore wind go far beyond just energy production. An offshore wind mandate in the administration’s new standards would kick-start an entire new American supply chain: engineering, manufacturing, transportation, installation, sales, technical support and more. Jobs and economic growth could benefit not just New York’s coastal communities, but upstate as well.

Offshore wind is still in its infancy in the U.S., but General Electric has built and [Deepwater Wind](#) has just installed the nation’s first offshore wind platforms and towers, right off Block Island. Beginning in the fall, these towers will deliver 90% of the island’s energy. The logistics of shipping channels, fishing grounds and wildlife migration were worked out to everyone’s satisfaction—proving that offshore wind can benefit all.

In Europe, large-scale offshore wind installations have been supplying power for 20 years. If any more proof is needed that the technology is available and the business models are in place, Denmark now sources 40% of its electricity from wind.

New York State has the opportunity, through a massive commitment to offshore wind, to continue its national leadership in setting strong clean energy policy. Not only can Gov. Andrew Cuomo and Mayor Bill de Blasio meet the [criteria they have set for sustainable energy](#), but they can improve the economic lives of our citizens.

Global warming presents a major threat to our state. New York's population and business centers have the most to lose from the sea-level rise and powerful storms wrought by unmitigated climate change. But we also may have the most to gain from ramping up renewable energy development, especially local offshore wind power. We need to continue New York's environmental leadership and make offshore wind part of the Clean Energy Standard.

Sydney Ward, a Manhattan resident, submitted testimony to the Public Service Commission at its May 31 hearing on the state's proposed Clean Energy Standard.



Bloomberg

[Bloomberg](#)

New York Has a Plan to Make Long Island Offshore Wind Cheaper

by Joe Ryan
[JoeRyanNews](#)

June 3, 2016 – 2:12 PM EDT

- ▶ State plans to bid on lease for site in the Atlantic
- ▶ 'This is a resource that has to be, and will be, developed'

New York State is mounting a broad effort to reduce the cost of building a wind farm off the coast of Long Island, an ambitious push to generate clean power in U.S. waters.

The state's Energy Research and Development Authority plans to bid for a federal lease to develop a 81,000-acre (127-square-mile) site in the Atlantic Ocean. If it wins, New York would undertake initial site studies and pursue an agreement to sell the electricity. The state would then hold an auction of its own, selling development rights to the highest bidder.

New York officials see offshore wind as critical for meeting the state's goal to get half its power from renewable sources by 2030. By doing the initial planning and guaranteeing a buyer for the power, the state intends to make the project appealing to developers, driving down costs and making it more likely the wind farm will be built.

"This is a resource that has to be, and will be, developed," John B. Rhodes, president and chief executive of the New York State authority, said in an interview Friday. "It is our job to do it as surefootedly and cost efficiently as possible."

Lower Risk

Offshore wind is among the most expensive sources of power in the world. While it has thrived in Europe, the technology has languished in the U.S. as utilities balked at the price. If New York succeeds in lining up a buyer, the state would remove much of the risk for developers, and ultimately make the power cheaper for consumers, said Willett Kempton, a professor at the University of Delaware who studies offshore wind.

“This is New York telling the country that offshore wind is going to happen,” Kempton said in an interview. “No other state has done this before.”

The U.S. Bureau of Ocean Energy Management plans to auction off the lease for the site by the end of the year. The area, about 11 miles (18 kilometers) south of the city of Long Beach, is large enough to accommodate turbines capable of generating 900 megawatts, rivaling a nuclear power plant.

The first wind farm in U.S. waters, a 30-megawatt project off Rhode Island, is being built by Deepwater Wind LLC and scheduled to be operational by the end of the year.

libn.com



Leaders, residents push for wind power

By: Claude Solnik ⌚ May 18, 2016 🗨️ 0

Community leaders, elected officials and residents yesterday and today urged the state to increase its use of wind turbines and for Long Island to be included in a state renewable power initiative.

Supporters of wind energy spoke at Clean Energy Standard public hearings that the New York State Public Service Commission held yesterday in Riverhead and today in the Rockaways and Mineola.

They called for Gov. Andrew Cuomo to make what the Sierra Club called an “enforceable commitment to renewable energy that includes large-scale offshore wind power.”

They also called for the Long Island Power Authority, which is considering a wind farm proposal off the east end of Long Island, to be included in a statewide mandate to source 50 percent of electrical energy from renewables by 2030.

And they called for LIPA and PSEG Long Island to move forward with a wind power proposal on the table.

Dan Sherrell, organizing representative for the Sierra Club's Beyond Coal Campaign said "offshore wind has the potential to power millions of homes while creating thousands of new jobs for New Yorkers."

Cuomo in 2015 directed the state's Public Service Commission to create a Clean Energy Standard requiring New York to provide at least 50 percent of its electricity with renewable energy by 2030.

"We're saying that goal needs a specific provision for getting offshore wind off the ground," Sherrell said of including a separate offshore wind category in the Clean Energy Standard. "That means utilities and power authorities would be required to purchase certain amounts of offshore wind energy to get to a goal."

He said that also would create certainty for wind power developers, leading both to investment and contracts to buy power.

Sherrell also called for the governor to commit "to a large-scale offshore wind program and require LIPA to be included as part of the push for alternative power targeting 2030. The PSC already has put out a plan to include LIPA in those goals, which would lead to mandates for the region.

"Right now all of this is up to debate," Sherrell continued. "They haven't finalized the standards."

State Sen. Todd Kaminsky (D-Long Beach) also called for the use of offshore wind "to ensure a cleaner and more prosperous New York for future generations."

Representatives from All Our Energy, Mothers Out Front, Citizen's Campaign for the Environment and Renewable Energy Long Island joined in a chorus calling for more wind power.

LIPA is considering two potential offshore projects off Long Island, including Deepwater Wind's proposal 30 miles off the coast of Montauk that would bring peaking power to the South Fork. Bid into a request for proposals for peaking power.

The federal Bureau of Ocean Energy Management just designated a triangular swath of ocean about 15 miles off the coast of Long Beach as viable for offshore wind development.

"They're hoping to hold a lease auction on that triangular swath of ocean by the end of this year," Sherrell said. "Developers will bid to develop that."



[Sierra Club](#)

LONG ISLAND COMMUNITY GROUPS AND LOCAL LEADERS URGE GOV. CUOMO TO COMMIT TO OFFSHORE WIND

Wednesday, May 18, 2016

Contact:

Emily Pomilio, Sierra Club, (480) 286-0401, Emily.pomilio@sierraclub.org

Dan Sherrell, Sierra Club, (732) 589-2412, dan.sherrell@sierraclub.org

Mineola, N.Y. – Community leaders, elected officials and over 80 local residents attended multiple Clean Energy Standard (CES) public hearings held across Long Island over the past two days, calling on Governor Cuomo to make an enforceable commitment to renewable energy that includes large-scale offshore wind power. The groups also called for the Long Island Power Authority (LIPA)—which is currently deliberating a wind farm proposal off the east end of Long Island—to be included in the Standard’s statewide mandate to source 50 percent of electrical energy from renewables by 2030.

"A comprehensive offshore wind program is essential to building a strong, clean-energy economy, and to meeting carbon reduction goals so that New York remains a responsible, conscientious player in tackling climate change," Senator Todd Kaminsky said. "I commend Governor Cuomo and Chair Zibelman for their ambitious plan, and encourage the adoption of an offshore wind tier to ensure a cleaner and more prosperous New York for future generations."

Senator Todd Kaminsky joined All Our Energy, Mothers Out Front, Citizen’s Campaign for the Environment, Renewable Energy Long Island, the Sierra Club and other local groups in urging Governor Cuomo to include offshore wind in the new Standard and to move forward on offshore wind projects currently proposed for Long Island. The request comes two weeks after Richard Kauffman, New York’s chairman of energy and finance, stated that “We are not going to be achieve our 50 percent goals by 2030 without offshore wind.” The groups contend that the only sensible way to meet the state’s offshore wind goals is by ensuring that it has a place in the Clean Energy Standard.

“Offshore wind has the potential to power millions of homes while creating thousands of new jobs for New Yorkers,” Dan Sherrell, Organizing Representative for the Sierra Club’s Beyond Coal Campaign said. “While the CES can help the Governor work toward his target of sourcing

50 percent of New York's energy from renewables by 2030, he won't be able to reach it without committing to a large-scale offshore wind program and ensuring that LIPA is included under the mandate."

In December 2015, Governor Cuomo directed New York's Public Service Commission (PSC) to create a Clean Energy Standard requiring New York to power 50 percent of the electric sector with renewable energy by 2030, moving the state closer to its goal of reducing climate pollution 40 percent by 2030. In early 2016, the PSC put forward the first proposal for the Clean Energy Standard with a goal of finalizing it by mid-year. Investing in offshore wind could transform Long Island into a regional clean energy hub -- jump-starting the industry, bringing high-paying, local jobs and manufacturing opportunities to the community and supercharging our economy while ensuring reliable, affordable energy all while protecting our environment.

"Governor Cuomo could plant the seed today for 50 percent renewable energy by 2030 in the one thing that can ensure his goal is met: our readily available off shore wind resource," George Povall, Director of All Our Energy said. "That seed would grow into a booming clean energy economy for NY and be a legacy other Governors could only dream they had the opportunity to plug in to!"

Beyond establishing an enforceable yearly target for renewable energy growth, the groups also asked Governor Cuomo and the Commission to create enforceable energy efficiency goals for utilities that require at least two percent annual energy savings are achieved. Neighboring states have already surpassed this amount of annual energy savings and have seen significant reductions in consumer's electricity costs. Along with an enforceable renewable and offshore wind mandate, an energy efficiency target will help ensure the state achieves the larger target of securing 50 percent of our electricity from renewables while saving money for citizens across the state.

THE EAST HAMPTON STAR



SHINES FOR ALL

Letters to the Editor: Wind Power 04.14.16

Offshore Wind Project

Springs

April 11, 2016

Dear David,

Two letters to last week's Star expressed negative sentiments about the proposed offshore wind project. This discussion should be put in the context of why this project is even proposed: Scientists warn that to continue with business as usual will result in cataclysmic effects from climate change. Evolving science indicates that those effects are happening now and accelerating beyond expectations with each passing year.

From that starting point, it is useful to consider the negative aspects of potential solutions, but equally important to ask, given the urgency of the problem, which solutions can be enacted quickly? To say there are other solutions begs the question without offering what those solutions are, or advocating for something else. As to comparative cost, anything on land, for Long Island, faces astronomical land cost as well as 5 or 10 years of legal battles with the neighbors.

One letter claimed these turbines were as destructive to marine environment as an oil rig. Really? There are no oil spills from wind turbines. And carbon dioxide from burning fossil fuels as it settles into the ocean becomes carbonic acid and begins to dissolve the shells of sea creatures, including phytoplankton, the bottom of the marine food chain. There are already reports of areas of the sea with 40 percent reduction in phytoplankton in the last 40 years. Wind turbines won't do that.

Rising sea temperatures from global warming are already killing coral reefs around the world. From The New York Times, April 9, "Coral reefs are the crucial incubators of the ocean's ecosystem, providing food and shelter to a quarter of all marine species, and they support fish stocks that feed more than one billion people. . . . An estimated 30 million small-scale fishermen and women depend on reefs for their livelihoods, more than one million in the Philippines alone.

In Indonesia, fish supported by the reefs provide the primary source of protein for a billion people. . . . This is a . . . planetary crisis, and we are sticking our heads in the sand about it.” Wind turbines won’t do that.

Claiming all manner of problems with wind turbines in Europe, the letter writers fail to explain why, then, are they building them as fast as they can all over the North Sea, off Scotland and elsewhere? In 2015, 419 offshore turbines were added, with seven being decommissioned in Sweden, for a net gain of 412 turbines. That was 108 percent better than the previous year, so clearly, the people already doing offshore wind love it and are accelerating deployment.

KRAE van SICKLE



[Utility Dive](#)

Offshore wind needed for New York's 50% energy goal, energy czar says

By [Herman K. Trabish](#) | April 8, 2016  print



Dive Brief:

Offshore wind development will be necessary for New York to achieve its 50% renewable energy goal by 2030, according to the state's Energy and Finance Chair Richard Kauffman, recently appointed by Gov. Andrew Cuomo to help reform the state's energy system.

Though offshore wind has struggled to compete with other energy sources on cost,

Kauffman told Bloomberg the ability to tap high-capacity-factor wind energy near the coast of New York could help the resource compete with other central station renewables, many of which would require large transmission projects to deliver energy to the state.

The Interior Department's Bureau of Ocean Energy Management (BOEM) last month officially designated a 127 square mile tract off the New York coast as a wind energy development area.

Dive Insight:

Price has long been an obstacle to U.S. offshore wind development, but Bloomberg notes that could change in coming years.

A recently released University of Delaware study found that offshore wind costs could fall as much as 54% by 2030. If Massachusetts committed to developing 2,000 MW of wind by that time, the researchers wrote, offshore wind could reach a price point of \$0.108/kWh.

Deepwater Wind's 30 MW, five-turbine Block Island Wind Farm off Rhode Island's coast will be the first operating U.S. offshore wind project. Its 20-year power purchase agreement (PPA) calls for all output to go to National Grid, one of New England's biggest electricity suppliers, at \$0.244/kWh.

Cape Wind, the proposed \$2.5 billion, 468 MW wind project planned for Nantucket Sound, had a PPA with National Grid for 50% of the project's output and a PPA with Eversource Energy for 27.5% of its electricity. Both were set at \$0.187/kWh for the project's first year output, with annual escalators. Both were found by state regulators to be beneficial for Massachusetts ratepayers.



[The East Hampton Star](#)

Letters to the Editor: Wind Power 03.31.16

Most at Stake

Amagansett

March 28, 2016

Dear David,

As you well know, East Hampton is a unique town in a unique area. The East End is an irreplaceable treasure, and East Hampton sits at the farthest reaches of this coastal wonderland. We are different from the mainland; we have different resources, different goals, and different challenges.

There's a good reason that we're the first town in our state to set a goal of being powered by 100-percent renewable energy: We have the most at stake from rising seas and changing weather patterns. We are most at risk for isolation from the mainland by storms. And we pay some of the highest electricity rates in the country. Energy independence is the key to overcoming these challenges, and it's well within reach, thanks to the refinement of technology like solar and wind power generation, microgrids, and high-tech battery storage.

Our town can be independent — independent from the high energy bills imposed by LIPA/PSEG, independent from the miles of transmission lines linking us to UpIsland power plants, independent from reliance on coal and gas that threaten the future of our waters and coasts, independent from the economic losses suffered by spending our hard-earned money on electricity that comes from out of town.

The recent push for increased renewable energy infrastructure is what we need to reach this goal by 2020. But to meet peak energy needs in the summer we need a system that includes various types of power generation and storage. Solar is growing, but we need to harness our incredible wind resources, and the Deepwater One project is the best way to do that right now.

Solar can provide a lot of energy, but only during the day, and it can't provide the extra boost we need for summer afternoons when demand is highest. Luckily, offshore wind turbines generate the most power during those peak times because they happen to coincide with the strongest coastal winds.

As the sun heats the land in the morning, it warms faster than the water, which creates a temperature and pressure differential, pulling air from offshore. As the sun sets and the land cools faster than water, the pressure difference pulls air out to sea, again causing increased wind speed.

Our solar resources are also huge on Long Island, and if we can store the energy well, distribute it through a microgrid (which is being tested for feasibility in East Hampton), and supplement it with wind energy to meet peak demand, we can provide 100 percent of our town's electricity needs without relying on fossil fuels or the profit-driven companies that continually bill us for doing something that we can do ourselves.

Deepwater Wind is a well-designed plan to secure an environmentally and economically stable future for not just our town, but many in the Northeast who need power but want to move past the age of reliance on fossil fuels. Reducing reliance on oil and gas reduces the need to drill for it, and while fossil fuels are finite, wind and sun will be here at least as long as we will.

At full power, Deepwater One could produce as much energy as 5 billion barrels of oil in the next 20 years. If all the available oil and gas in the Atlantic Outer Continental Shelf were harvested, it would only meet energy needs for less than a year.

The environmental damage prevented by decreasing the extraction and burning of oil and gas is far greater than any environmental impacts from the offshore turbines (which are being addressed and minimized by planning construction around the seasons of various animals and natural cycles, as well as reducing noise and planning the placement of cables with ecosystems in mind).

I have my concerns about impacts on marine life and birds, too, but those impacts are better understood now and are being greatly minimized and considered in this project. The environmental benefits from East Hampton's support of our renewable energy goals outweigh the risk, in my mind, and also provide huge economic benefits, plus we can set the stage for other communities to follow suit.

Let's make progress toward our 100-percent renewable goal. Let's work together to achieve energy independence through an approach that uses our unique set of wind and solar resources.

Our town sets an example for others, and people come from all over to visit here, so let's show them what we can do. Let's show them the independent and self-sustainable community that we are and always have been.

TYLER ARMSTRONG



Need Offshore Wind

East Hampton

March 27, 2016

Dear David:

The East Hampton Star's excellent reporting on the wind energy March 19 forum and your editorial "A Commitment to Wind Energy" have generated increased public support in our community for offshore wind energy. Thank you!

The next two weeks are critical, as the clock continues to tick until the Long Island Power Authority trustees' May decision on the Deepwater Offshore Wind Farm proposal. The trustees are considering proposals to meet the growing need for what PSEG-L.I. calls current and future "load growth" on the South Fork. Will the trustees continue business as usual with their support for the fossil fuel industry, emitting carbon dioxide into an already choking atmosphere, or will they reach to the future with a historic transformation to clean renewable energy solutions, including offshore wind, to power our community's future?

This week, Dr. James Hanson, director of the Climate Science, Awareness and Solutions program at Columbia University's Earth Institute, who has not yet been wrong on the science of climate change, in particular warming oceans, melting sea ice, rising sea levels, and the frequency of extreme weather events, has made public the latest study he co-authored with a team of 19 international scientists. The study concludes that "multimeter sea rise could happen within a matter of decades, rather than centuries as previous estimates suggested." Deeper cuts in fossil fuel emissions are a "scientific conclusion." And, the challenge to coastal communities like East Hampton continues to escalate.

In East Hampton, we have committed to meeting 100 percent of our community's electricity needs with renewable energy sources by 2020. We need clean renewable energy options, including offshore wind. The town's Department of Natural Resources has been working through funded state programs in locally distributed solar opportunities, microgrids, demand-response upgrades, and energy efficiency programs like Long Island Green Homes to meet this target. But we need the offshore wind farm proposed by Deepwater Wind to reach the town's laudable historic 2020 goal. And LIPA and PSEG-L.I. must know this now.

South Fork residents still have an opportunity to publicly support clean renewable energy options in meeting future demand without the fossil fuel industry. Last Monday, at the LIPA trustee meeting, I presented 406 copies of a letter to Governor Cuomo from local residents, in support of renewable energy resources including wind. A copy of this letter to the governor is still available for signature on the Renewable Energy Long Island website: RenewableEnergyLongIsland.org.

LIPA trustees and PSEG-L.I. need to understand, no more overhead transmission lines in our town, and no more fossil fuel “peaker” plants in our neighborhoods!

LINDA JAMES

Stop Burning Fossil Fuels

East Hampton

March 25, 2016

Dear David,

It was most gratifying to read of the positive groundswell of effort from citizens of East Hampton in support of the proposed offshore wind farm beyond the horizon off Montauk. Particularly encouraging was the action of students in town, who have the most to lose as the waters rise and storms intensify. They are right to protect their future by demanding that the Long Island Power Authority face scientific facts.

As observers of the political battle we are witnessing on the national scene, however, we can predict that there will be those who object. It is very rare to achieve unanimity on anything that requires change.

I can think of one exception to that rule. The exception is that 195 countries, many of which are at war with each other, and each of which is relying on its own national science hierarchy, have unanimously agreed in Paris at COP21 that burning fossil fuels causes climate change, climate change poses a dire threat to civilization, and we must work together to stop burning fossil fuels. Imagine just how ironclad the scientific evidence would need to be to get every industrial country on earth to agree to such a radical change! Then be dumbfounded, along with me, at the combination of arrogance and ignorance necessary to believe that one has some secret source of scientific certainty proving all those scientists wrong.

There are downsides to using our land for solar farms, and downsides to wind farms on land or sea, but the problem remains: How do we stop burning fossil fuel? Do people prefer nuclear power? Should we pretend the problem will go away, and passively submit to global catastrophe? This is not a problem that can be solved down the road. Scientists have warned that

we are approaching tipping points beyond which it becomes a runaway. The transition will take 30 years, and we must start now. Proverb: “A society grows great when old men plant trees whose shade they know they shall never sit in.”

I hope we will face the fact that there are no perfect solutions. If we don't begin the transition to non-carbon energy now, we will be remembered by history as the generation that understood the problem, but sacrificed the future of its children by refusing to act because of short-sighted, self-serving objections. And this proposed wind farm, which would supply more electricity than is used by all of East Hampton Town, is a giant first step!

DON MATHESON

THE EAST HAMPTON STAR



A Commitment To Wind Energy

Even small changes warrant serious action

By [Editorial](#) | March 24, 2016 - 12:46pm

Concerns about our rapidly warming planet are on the rise. Climate advocates argue that heading off the worst effects of global warming will require cutting fossil fuel emissions, and the key will be a shift to renewable sources of electricity. In the Northeast, to no small measure this will mean wind power — and when one thinks about wind power on a scale large enough to make a difference, that means offshore turbines.

Some scientists now say cataclysmic climate shifts could come within decades, not centuries. But even small changes warrant serious action, given that the effects of sea level rise are already being seen as close as East Hampton's own bays and ocean beaches. There is evidence that oceanic warming, changes in seawater acidity, and several other factors are already affecting fish and shellfish. Climate scientists believe that powerful storms will slam into our region more frequently as ocean temperatures increase.

The movement toward power generation off the New England and Long Island coasts does not come without opposition, notably from the commercial fishing industry. Fishermen are alarmed about the potential loss of important harvesting grounds, jobs, and even whole communities that could be hurt.

A test project on localized effects is already under way. Deepwater Wind, a private company, is installing five turbines southeast of Block Island, which could supply as much as 90 percent of that island's power. Monitoring the construction and the operation of these turbines is expected to provide important information that could be useful as proposals for large projects south of Long Island are reviewed.

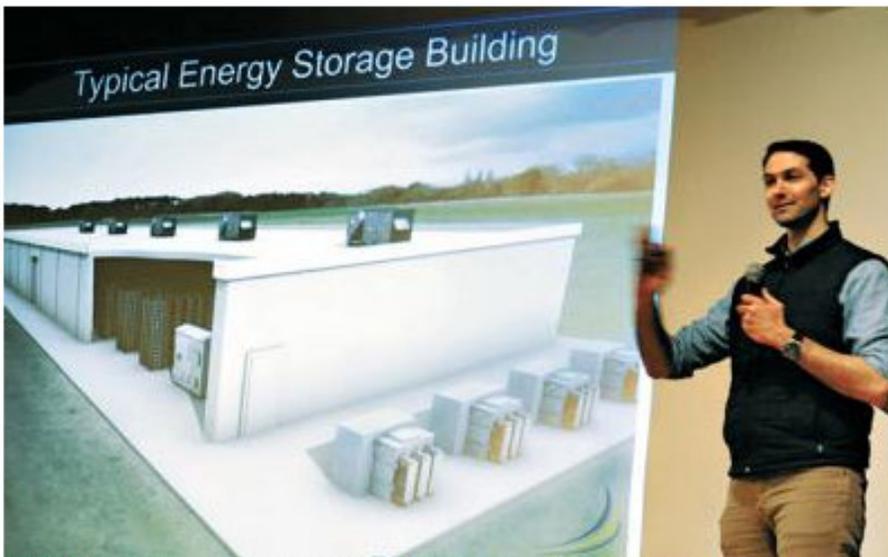
It might be easy to say that a balance should be found between the two interests, fishing and wind power, but some industry voices continue to say that ocean turbines are simply incompatible with fishing. As for federal officials, they have said the impacts of offshore projects like this are not yet well understood. Given the urgency of climate change, the time for finding balance, as opposed to aggressive action, may be ending.

If the United States is going to get serious about climate change, each section of the country will have to do its part. Reducing demand for electricity would help to some extent, but in reality we must move well beyond the 13 percent of needed electricity generation now provided by renewable sources. Our region's greatest single asset in that regard is the consistent wind off our coast. To ignore the role it could play in reducing greenhouse gas emissions would be a terrible mistake.

Swell of Support Buoy Wind Project

Cantwell and residents applaud Deepwater's renewable energy scheme

By Christopher Walsh | March 24, 2016 - 2:31pm



Clint Plummer described aspects of his company's proposed offshore wind farm on Saturday.

Morgan McGivern

Harvesting offshore wind energy would go a long way toward meeting the South Fork's growing demand for electricity while reducing or eliminating the need for fossil-fuel-burning power plants, residents were told at a forum on wind energy on Saturday.

At the same time, climate scientists warn that a steep reduction in fossil-fuel emissions is increasingly urgent, with two federal agencies announcing this month that global temperatures in February were the most abnormally warm on record. According to

NASA, six of the last nine months have tied or set new temperature records for that month, responsible for 2015 being the planet's warmest year on record. "The issues of global warming and sea level rise," East Hampton Town Supervisor Larry Cantwell said on Saturday, "are clearly at our feet."

Clint Plummer of Deepwater Wind, a Rhode Island company that is building the country's first offshore wind farm and has submitted a proposal to the Long Island Power Authority for a larger installation to serve the South Fork, told the gathering at the East Hampton Middle School that tapping the area off the northeastern United States represents "an exciting opportunity for the South Fork and the town to be a global leader in demonstrating not just offshore wind but a completely new way of thinking about how to supply energy."

The proposed installation, approximately 30 miles off Montauk, would offset the need for new fossil-fuel plants that run during peak demand, Mr. Plummer said. It would be built within a 256-square-mile site to which the federal government awarded Deepwater Wind a 30-year lease in 2013. LIPA will announce a decision on the proposal in May.

Along with Mr. Cantwell, Mr. Plummer was joined Saturday by Gordian Raacke, executive director of Renewable Energy Long Island, which hosted the event; John Sousa-Botos of the town's Natural Resources Department; Councilwoman Sylvia Overby, and Linda James, a member of the town's Energy Sustainability Advisory Committee, all of whom encouraged those in attendance to support wind and other forms of renewable energy.

Deepwater Wind's proposal for the South Fork comprises 15 six-megawatt wind turbines and battery energy storage facilities in Montauk and Wainscott. "The need here was big and growing, but required balancing the system out," Mr. Plummer said, with the integrated battery storage systems able to "ramp up and down" in response to higher- than-usual demand or low levels of wind.

All transmission lines would be underground except for a connecting point at the Buell Lane substation in East Hampton, he said, and the battery storage facilities would be in industrially zoned lands not abutting residential properties. Though it is early in the process — should LIPA agree to purchase electricity from Deepwater Wind, an operational wind farm is still several years into the future — the company is working with the town to define the scope of construction, Mr. Plummer said.

The company is now constructing the country's first offshore wind farm, a five-turbine installation that is expected to supply more than 90 percent of Block Island's electricity needs. The initial phase of that construction, from July to November, was successful, Mr. Plummer said. A Norwegian vessel, the largest in the world, is due in July to install the turbines, he said.

Mr. Plummer said his company had listened to members of the community, including stakeholders such as the commercial fishing industry, and devised construction

methodologies to minimize disturbance to fisheries and species such as the endangered North Atlantic right whale.

The South Fork's fishing industry, Mr. Cantwell said, "is concerned about navigation and fishery resources" and encouraged Deepwater to continue to work toward minimizing impact. In Europe, Mr. Raacke said, large-scale offshore wind farms have operated for more than two decades without significant environmental impacts.

Several of those in attendance traveled to Uniondale on Monday and were among approximately 100 people from groups including the Sierra Club and Working Families Organization Long Island to rally at LIPA's headquarters, urge its board of trustees to select Deepwater Wind's proposal, and call on Gov. Andrew M. Cuomo to make a large-scale commitment to offshore wind. At the board meeting, Mr. Raacke read into the record a statement from Mr. Cantwell in which the supervisor said, in part, that "it is clear that we will need to utilize our offshore wind resources to generate a large part of our electricity needs." Hundreds of letters from South Fork residents were also delivered, along with a petition circulated by East Hampton High School's Environmental Awareness Club and middle school students and bearing more than 400 signatures urging LIPA's board to select only clean and renewable energy sources.

"We're at a decision point on the South Fork with regard to our energy needs," Mr. Cantwell said on Saturday. He cited the deeply unpopular installation of a high-voltage transmission line between the East Hampton and Amagansett substations by PSEG Long Island, which manages the Island's electrical grid on behalf of LIPA, as an example of a traditional means of meeting demand.

The impact of climate change on the town will likely be severe, the supervisor said, listing early manifestations including "an alarming rate" of sea level rise, more extensive flooding in moderate storms, and receding beaches, while potential future impacts include the loss of waterfront development, a vulnerable infrastructure, and changes in the migratory patterns of fish. "What impact will this have on Montauk, the largest commercial fishing port in the state?" he asked. These impacts, he said, "are only scratching the surface of the consequences" of unchecked climate change.

An offshore wind farm serving the South Fork, he said, would help the town achieve the goals adopted in 2014 of meeting 100 percent of communitywide electricity consumption with renewable sources by 2020 and the equivalent of 100 percent of economywide energy consumption, including heating and transportation, by 2030.

“You recall the slogan — think globally, act locally,” Mr. Cantwell said. “I think we’re at that point where we have to consider how we want to act as a community.” Electricity rates on Long Island are alarmingly high, he said, and new sources and delivery of power must be cost effective. “That’s where I think we have to take a really close look at wind and solar.” The town’s renewable-energy goals are “very ambitious,” he said, “but sometimes it’s okay to overreach.”

Referring to then-Governor David Paterson’s executive order that the state adopt a goal to reduce greenhouse gas emissions 80 percent below 1990 levels by 2050, Mr. Raacke said that “we need to continue much beyond that. . . . We need to grow utility-scale solar and other renewable sources.”

“We cannot solve this problem,” he said, “without tapping and harvesting our offshore wind resource on Long Island.”



Scott Bluedorn of the town's energy sustainability committee, Jillian, Georgia, and Maddie Aldrich, Ashley Morales, and Victor Borisov, all current and former East Hampton students, attended a forum on offshore wind energy at the East Hampton Middle School on Saturday.

Christopher Walsh

THE INDYPENDENT

a FREE PAPER for FREE PEOPLE

Long Island Community Groups and Leaders Rally for Offshore Wind



Offshore wind supporters march on Monday to a meeting of the Long Island Power Authority.

BY PATRICK ROBBINS/SANE ENERGY

MARCH 22, 2016

Uniondale, N.Y. – On Monday, over 100 Long Island community groups and local leaders including Renewable Energy Long Island, Working Families Organization Long Island, Sane Energy Project and the Sierra Club, hosted a rally prior to the Long Island Power Authority (LIPA) board meeting. At the event the groups called on LIPA to choose investment in large-scale offshore wind energy projects in order ensure that Governor Cuomo’s goal of sourcing 50 percent of New York State’s electricity from renewable power by 2030 is met. Groups also called on Governor Cuomo to commit to offshore wind projects off Longs Island as a first step in creating a bold long-term, large- scale offshore wind program for New York. During the hearing,

the Long Island Power Authority Board of Trustees heard testimony in support for offshore wind rather than investments in dirty fossil fuel plants of the past. LIPA is expected to select projects in May.

“In order to meet his target of sourcing 50 percent of New York’s energy from renewables by 2030, it’s critical that Governor Cuomo commits to a large-scale offshore wind program,” Dan Sherrell, Organizing Representative for the Sierra Club’s Beyond Coal Campaign said.

“Choosing offshore wind for the South Fork is a crucial first step toward a larger program, which could power millions of homes and create thousands of new jobs for New Yorkers.”

In the last year, East End municipalities have approved a resolution to power that region of Long Island with 100 percent renewable energy by the end of the decade. Currently, PSEG-Long Island (PSEG-LI) has proposed to build expensive, oil-powered plants, commonly called “peakers,” in order to meet a small increase in projected energy demand for this area, instead of considering renewable energy options. However, LIPA and PSEG-LI have the opportunity to invest in a renewable energy future for Long Island by selecting an offshore wind and battery storage project to power the east end, instead of investing in an historically volatile energy market by backing the construction of oil peaking plants.

“The Town of East Hampton has set a goal to meet 100 percent of our community’s energy needs with renewable energy sources,” Larry Cantwell, Supervisor of the Town of East Hampton said. “We will pursue all opportunities for land-based clean energy sources here, but we need to harvest our tremendous offshore wind resource to meet the Town’s and the State’s energy goals.”

Earlier this year, Governor Cuomo committed to cut carbon pollution 40 percent and source 50 percent of New York’s electricity from renewable energy by 2030. However, LIPA’s current energy mix only contains 3 percent renewables. With the adoption of a large-scale offshore wind program, New York has the opportunity to become a regional incubator for a growing industry with the capacity to power millions of homes and create

thousands of new jobs for New Yorkers, all while making deep cuts in the state’s climate pollution.

“We are standing at the proverbial fork in the road, LIPA will choose to build a fossil fuel peaker plant on the South Fork or an offshore wind farm with battery storage back up,” Adrienne Esposito, Executive Director of Citizens Campaign for the Environment said. “One choice can chart a new future. Choose wind power. The time is now, the place is here!”

Beyond stifling the Governor's efforts to combat climate change in New York, investing in new oil peaker plants for the South Fork would further decrease Long Island's fuel diversity, subjecting ratepayers to increasing price volatility as experienced in recent winters. Alternatively, developing offshore wind would ensure reliable, affordable energy that creates jobs while protecting our environment.



[East End Beacon](#)

Offshore Wind Advocates to Rally Monday at LIPA Headquarters

Posted by [Beth Young](#) • [March 20, 2016](#) • [Top Stories](#) • [1 Comment](#)



The Anholt offshore wind power plant in Denmark. Offshore wind has become prevalent in Europe.

East Hampton Town has set a lofty goal to produce the entire town's electric power through alternative energy within the next four years.

It's a goal that relies heavily on the possibility of offshore wind providing power to East Hampton, but whether that comes to pass or not depends on whether the Long Island Power Authority accepts a bid from offshore wind company Deepwater Wind to provide power to the far east end of the South Fork.

Renewable Energy Long Island, the non-profit that has been at the forefront of the push for wind power in East Hampton, is holding a rally Monday morning, March 21 at 11:30 a.m. at LIPA headquarters in Uniondale before the LIPA trustee meeting, in an attempt to push the power company to accept Deepwater Wind's bid.

If LIPA approves the bid, the power from the Deepwater One site, 30 miles east of Montauk in the Atlantic Ocean, will be sent via cable to East Hampton Town's electric

substation on Buell Lane. Deepwater Wind would also build lithium ion battery backup stations in East Hampton to ensure more reliable distribution of power.

Bid winners are expected to be announced in June.

Representatives from East Hampton Town, Renewable Energy Long Island, and Deepwater Wind were on-hand at the East Hampton Middle School Saturday morning, March 19, for a discussion on the future of wind power in East Hampton.

The event was organized by the town's Energy Sustainability Committee, in with the help of the East Hampton High School's environmental club, which gathered signatures from 391 students on petitions to be delivered to LIPA Monday morning.

"I want to tell the kids it's their world, and we're working to make it better," said Energy Sustainability Committee member Linda James, who moderated the discussion. "The future is now."

"It seems pretty clear and accepted on the South Fork that our peak energy demand exceeds our ability to meet that demand," said East Hampton Town Supervisor Larry Cantwell, who added that the town wants to have a say in how LIPA ultimately decides to meet that demand.

The South Fork is the one area of Long Island that is still seeing substantial growth in electric use.

"It's clear that in the next year or two these decisions are going to be made. We want to play an important role in the decisions," he added. "Global warming and sea level rise are clearly at our feet. The discussion is not about mediating it, it's about how we're going to adapt to it."

He added that, in the future, Main Beach in East Hampton may no longer exist, and changes in migratory fish patterns as the oceans warm may wreak havoc on Montauk, which is New York's largest commercial fishing port.

"I'm only scratching the surface of the consequences of sea level rise," he said.

Mr. Cantwell described the town's 100 percent renewable energy goal as "a very ambitious schedule, but it's ok to overreach."

The towns of Burlington, Vermont; Greensburg, Kansas and Aspen, Colorado have achieved their goals of producing all their energy from renewable sources, and the city of San Francisco is planning to do the same by 2020.

Renewable Energy Long Island Executive Director Gordian Raacke echoed Mr. Cantwell's dire predictions about climate change.

"Leaders at the state level recognize this crisis," he said. "This is probably the greatest crisis humanity has ever faced."

Mr. Raacke said carbon dioxide levels in the atmosphere are now routinely above 400 parts per million, and could be as high as 600 parts per million by mid century. These are already the highest levels in 800,000 years.

Scientists have set a benchmark of reducing atmospheric carbon to 350 parts per million, which would limit the global temperature increase to 2 degrees Celsius.

"We have to do it quickly," he said. "We need to reduce our carbon emissions by 80 percent by 2050, and we may need to go as far as 95 percent."

East Hampton Town consumes about 310,000 megawatt/hours of electricity per year, and the town is working on several ideas for solar farms that could produce a greater share of the town's electricity.

But to reach the 2020 goal, they will need a substantial amount of power from wind.

Mr. Raacke, who is originally from Germany, said much of Europe has already accepted that offshore wind needs to play a major role in their energy future.

"In Germany, they call this 'the great transformation,'" he said. "It's amazing to see what people are doing. I hope the South Fork and the entire island will go that same route. We can do this. We have to do it."

East Hampton Natural Resources Department Environmental Technician John Botos, who also serves as the town's Climate Smart Communities Coordinator, outlined the town's energy goals.

He said East Hampton was the first community in New York State to adopt a Climate Action Plan, and in 2013 completed a Comprehensive Energy Vision, which set the goals outlined in the town's 2014 pledge to switch to renewable power.

The town is now looking to create a ‘microgrid’ of solar panel installations at public buildings, including police stations, the airport, fire stations, schools, the town hall complex and the Montauk Playhouse.

“There are a lot of moving parts, a lot of decision makers, and they’re not all in the same room together,” he said. “The East Hampton Town Board believes in these goals, but how do we influence other decision makers? We need to get the pieces of the puzzle to talk to one another.”

He urged members of the community to attend the rally at LIPA headquarters on Monday, or to write to Governor Andrew Cuomo in support of the Deepwater Wind project.



Deepwater Wind Vice President of Development Clint Plummer laid out his company’s plans, which rely on the great advances in offshore wind technology in recent years, which has brought down the price of turbines, making wind power competitive price- wise with fossil fuel-fired energy plants.

Deepwater Wind is currently constructing the first offshore wind farm in the United States — five turbines off of Block Island that can power the entire island. Currently, about 1 million gallons of diesel fuel are brought to the island each year for use in their electric plant. Mr. Plummer said the wind farm will power the entire island, and bring down electric rates by 40 percent. It will also include a transmission cable that can send excess power to the mainland in Rhode Island.

While offshore wind has been very controversial in the United States, Mr. Plummer said Deepwater Wind has adopted a company culture of working with groups that have opposed offshore wind in the past, working with environmentalists to protect right whales, with the Narragansett Indian tribe to determine whether there are any ruins of ancient civilizations on the sea floor, and reaching out to commercial fishermen.

The Block Island project was the subject of some controversy over OSHA reports of unsafe conditions during the construction this past year of the bases for the turbines, but Deepwater Wind representatives say addressed those safety concerns.

Mr. Plummer said the project had “perfect environmental compliance and a better-than- average safety record.”

The Block Island turbines and the transmission cable to the island are expected to be installed this year.

Many members of the audience had detailed questions for Mr. Plummer.

“There are still some in the commercial fisheries community who’ve expressed concerns in Montauk,” said Mr. Cantwell. “I encourage you to work with commercial fishermen in Montauk with respect to this.”

“Building relationships with the fishing industry takes a long time,” said Mr. Plummer. “I believe we can thrive together. We’ve seen that happen in Europe and with Block Island. They’re dealing with declining yields and increasing regulations, and there’s a lot of uncertainty around that industry.”

Other members of the public worried about the long-held belief that windmills are dangerous to birds.

Mr. Plummer said Deepwater Wind kept two avian radar stations near the Block Island site for three years to monitor birds there, and will do the same with the Deepwater One site.”

He said that very few birds fly that far offshore, and most damage to birds comes from fast-spinning, smaller turbines than the ones used by his company.

“The machines themselves have changed dramatically,” he said. “They spin at six rpm, not 30. Most of the problems have come from bad science, bad engineering and one bad project in Altamont, California.”

Mr. Plummer added that the turbines, whose blades are 600 feet above mean high water, are designed to withstand a Category 4 hurricane, and when the wind blows above 25 meters per second, the turbines automatically shut down, the blades feather, and the hub of the machine steers into the wind.

“I don’t know of any whose blades have come off” in a storm, he said.

Mr. Plummer said the Block Island project is being financed by the private equity firm D.E. Shaw, which has put in \$100 million, and through \$279 million raised by six banks.

“We’re 100 percent privately financed. That’s an important point,” he said. “We’ve taken no government money. If we know we have a customer, we can build the project.”

Mr. Plummer did not explain the details of the bid offer to LIPA, which is a competitive bidding process, with about a dozen-and-a-half other applicants pitching conventional fossil fuel-powered plants, but he did say he believes Deepwater One’s bid is “competitive” with conventional fuel-powered plants.

“We will sell the power to LIPA under a long-term contract at a fixed price,” he said. “We take all the risk on whether the wind blows or not.”

“They get paid for the electricity they sell, and they’re taking the risk,” added Mr. Raacke. “Here we will know what we’re going to pay per kilowatt-hour for the next 20 years. With a commercial power plant, LIPA signs a blank check on our behalf.”

Mr. Botos said the group that plans to rally at LIPA headquarters Monday morning will be comprised of “you guys as individual rate-payers.”

“We pay the highest electricity rates in the continental United States,” he said. “Do you want to buy power from that smokestack in Northport or Island Park or from clean technology?”



Wind Energy Forum Saturday

By Christopher Walsh | March 17, 2016 - 2:01pm

[The East Hampton Star](#)

Renewable Energy Long Island, a nonprofit organization that advocates a transition from fossil fuels, will host a forum on wind energy on Saturday from 10 a.m. to noon at the East Hampton Middle School.

The forum is intended to introduce the town's residents to offshore wind energy, cover topics concerning environmental protection, and answer questions.

Gordian Raacke, Renewable Energy Long Island's executive director, will be a featured speaker at the forum along with John Sousa-Botos of the town's Natural Resources Department and Clint Plummer, the vice president of development for Deepwater Wind, a Rhode Island company that has proposed a wind farm approximately 30 miles off Montauk. Mr. Plummer will present the latest information on his company's proposal, Mr. Raacke said on Monday.

Deepwater Wind's proposal includes 15 offshore wind turbines and battery energy storage facilities in Montauk and Wainscott. The project, if approved, could generate 90 megawatts of electricity upon completion. The company is at present constructing the country's first offshore wind farm, a 30-megawatt, five-turbine installation that is expected to supply most of Block Island's electricity needs.

The project was among the proposals received last year by PSEG Long Island, which manages the Island's electrical grid on behalf of the Long Island Power Authority. The utility's request sought an additional 63 megawatts of electricity to be installed between 2017 and 2019 to meet demand on the South Fork that has far outpaced the rest of Long Island, with particularly high usage in the summer and on weekends and holidays.

In December 2014, LIPA rejected a previous proposal by Deepwater Wind, but Mr. Raacke said that he is cautiously optimistic about the company's latest pitch. "They were debriefed, called in afterward," he said, "where LIPA folks told them why they did not select the project. Based on that, they redesigned it to meet whatever objections they must have had."

The proposal was designed to meet the South Fork’s peak energy demand, he said, and not that of the entire Island as in the previous proposal. He called the proposal’s battery- storage element “a clear indication that it was designed to alleviate the problems PSEG is worried about on the South Fork in terms of peak demand.”

PSEG and LIPA are reviewing the proposals, with LIPA scheduled to announce a decision in May. Mr. Raacke said he would attend LIPA’s board of trustees meeting in Uniondale on Monday, “to let the board know what we want.” While Deepwater Wind’s proposal for the South Fork would not be completed before 2022, “It’s not a shot in the dark anymore,” Mr. Raacke said.



Suffolk Closeup: The future is beyond the horizon

by Karl Grossman  Featured Story

03/05/16 8:00am



COURTESY PHOTO | Massive wind turbines out at sea could be a clean solution to Long Island's energy needs.

An energy revolution is happening just east of Shelter Island.

Deepwater Wind is constructing the nation's first offshore wind farm — five turbines off Block Island — scheduled to be in operation this year.

Rhode Island-based Deepwater Wind, emerging as the leading offshore wind company in the United States, is seeking to follow its Block Island project, with another one 30 miles southeast of Montauk.

Dubbed “Deepwater ONE,” it would initially involve 15 turbines. But the company's goal is to install 200 turbines, capable of supplying a significant portion of Long Island's electricity.

A key innovation made by Deepwater Wind is solving the problem of placing wind turbines in deep water, over the horizon and out of sight.

This model silences the complaints heard on Long Island 15 years ago when the Long Island Power Authority (LIPA) proposed a wind farm off Jones Beach, which also were raised on Martha's Vineyard when the Cape Wind company sought to build a wind farm off that Massachusetts island.

The need to place wind turbines in relatively shallow water and close to shore was a result of "old technology," said Clint Plummer, vice president of development for Deepwater Wind. "Our focus is to avoid the controversy entirely by locating wind turbines over the horizon," says Mr. Plummer.

The U.S. has been exceedingly slow in moving ahead on offshore wind, a booming technology in Europe, notably in the United Kingdom, Denmark and Germany. There are now 3,000 wind turbines off European shores. "Offshore wind is a vitally important resource for densely populated coastal areas," Mr. Plummer noted. "The Europeans recognized that ... The first offshore wind farm in the world was built off the coast of Denmark in 1991" and is "still operating."

Globally, \$20 billion a year is being invested in offshore wind, he added, employing 85,000 people.

"We have a real opportunity here in the United States, particularly in the Northeast — Long Island, New England, the Mid-Atlantic States," Mr. Plummer said.

This part of the U.S. relies on old power plants and there will be a need here for a "massive change-over." Offshore wind "can be a big part," he said, "replacing the old, retiring, dirty and expensive fossil fuel plants" as well as "retiring nuclear facilities."

For the same cost as building conventional power plants, there could be offshore wind farms. "We can do it cost-effectively," Mr. Plummer said. "We can do it without controversy by installing wind turbines far enough offshore so they are over the horizon, and out of conflicted areas — shipping lanes and productive fishing areas."

For the Montauk project, Deepwater Wind also seeks to combine energy storage with production. It is proposing two battery energy storage facilities on industrially zoned sites in Montauk and Wainscott to hold power when the winds are calm.

Offshore wind turbines also have an advantage over onshore turbines since the components for the latter have “real sizing constraints” — they must be transported “over roads and bridges and around corners,” Mr. Plummer said. Offshore wind turbines can be assembled at coastal sites and then “taken by barge off-shore.” That’s why, he added, the

average size of a wind turbine on land is two to three megawatts while the larger offshore turbines are six to eight megawatts.

There has been worry among fishing interests on eastern Long Island, but Mr. Plummer says that Deepwater Wind’s turbines will be a mile apart providing plenty of room for fishing. He pledged Deepwater Wind would “work closely” with the fishing community.

As for the concern of birds getting killed, he said Deepwater Wind conducted a two-year study using “avian radar” and found that birds in migration hug the coast and are not out where the Deepwater Wind turbines would be located.

Although LIPA has not been bullish on offshore wind since its chairman, Richard Kessel, left office, New York Governor Andrew Cuomo is highly enthusiastic. In January in his “State of the State” address he announced a wind power initiative involving government “at all levels” and the citizenry.

The National Wildlife Federation (NWF) applauded Mr. Cuomo’s “commitment to clean energy.” The NWF’s Northeast Regional Director Curtis Fisher said: “For the first time today, a New York governor highlighted the important role offshore wind power must play in its energy future.”



LI Politics

KARL GROSSMAN: AN ENERGY REVOLUTION IS HAPPENING EAST OF LONG ISLAND

Sat, Feb 27, 2016



An energy revolution is happening east of Long Island.

Deepwater Wind is constructing the nation's first offshore wind farm—five wind turbines off Block Island, Rhode Island.

Deepwater Wind has emerged as the leading offshore wind company in the United States. It is seeking to follow its Block Island project, to be in operation this year, with what it calls Deepwater ONE, 30 miles southeast of Montauk. Deepwater ONE would initially involve 15

turbines but the goal is for eventually 200—and their generating a significant portion of Long Island’s electricity.

And Deepwater Wind is working to follow that up with Garden State Offshore Energy—a joint venture with PSEG—with ultimately 200 wind turbines off New Jersey. A key innovation made by Deepwater Wind is figuring out how wind turbines can be placed in deep water—as reflected in its name—over the horizon and out of sight.

This eliminates the complaints heard on Long Island 15 years ago when the Long Island Power Authority (LIPA) proposed a wind farm off Jones Beach which also were raised on Martha’s Vineyard when the Cape Wind company sought to build a wind farm off that Massachusetts island.

The need to place wind turbines in relatively shallow water and close to shore in was a result of “old technology,” says Clint Plummer, vice president of development for Deepwater Wind. However, Providence, Rhode Island-based Deepwater Wind has drawn from technology established in offshore gas and oil drilling and the European experience with offshore wind to develop wind turbines that can be placed way out to sea. Also, he notes, the wind is stronger there.

“Our focus is to avoid the controversy entirely by locating wind turbines over the horizon,” says Mr. Plummer.

The U.S. has been exceedingly slow in moving ahead on offshore wind—a technology that’s been booming in Europe, notably in the United Kingdom, Denmark and Germany. There are now 3,000 wind turbines off Europe. “Offshore wind is a vitally important resource for densely populated coastal areas,” says Mr. Plummer. “The European recognized that...The first offshore wind farm in the world was built off the coast of Denmark in 1991” and is “still operating.”

Some \$20 billion a year is being invested in offshore wind, he says, and 85,000 people employed. “It has become a massive global industry.”

“It’s a big industry producing big results,” says Mr. Plummer. “We have a real opportunity here in the United States particularly in the Northeast—Long Island, New England, the Mid-Atlantic States.”

This part of the U.S. relies on old power plants and there’ll be a need for a “massive change-over.” Offshore wind “can be a big part,” he says, in “replacing the old, retiring, dirty and expensive fossil fuel plants” as well as “retiring nuclear facilities.”

For a cost the same or less as building conventional power plants, there could be offshore wind farms, he says. “We can do it cost-effectively. We can do it without controversy by

installing wind turbines far enough offshore so they are over the horizon, and out of conflicted areas—shipping lanes and productive fishing areas.”

For its Deepwater ONE project, Deepwater Wind also seeks to combine energy storage with production. It is proposing two battery energy storage facilities on industrially zoned sites in

Montauk and Wainscott to hold power for when the wind lightens up.

Offshore wind, he says, also has a big advantage over onshore wind in that the components for on land turbines have “real sizing constraints”—they must be transported “over roads and bridges and around corners.” Offshore wind turbines can be assembled at coastal sites and then “taken by barge off-shore.” That’s why, he said, the average size of a wind turbine on land is two to three megawatts while offshore turbines are six to eight megawatts. And the larger wind turbines are, “the more energy they are able to harvest out of the air.”

There has been worry among fishing interests on eastern Long Island, but Mr. Plummer says that Deepwater Wind’s turbines will be a mile apart providing plenty of room for fishing. He says Deepwater Wind wants to “work closely” with the fishing community. As for the concern of birds getting killed, he said Deepwater Wind conducted a two-year study using “avian radar” and found that birds in migration hug the coast and are not out where the Deepwater Wind turbines would be.

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Suffolk Closeup



Karl Grossman

Suffolk Closeup

Blowing in the wind: How an energy revolution is taking place off our coast

by Karl Grossman Feb 27, 2016, 8:03 am



Image: Deepwater Wind

An energy revolution is happening east of Long Island.

Deepwater Wind is constructing the nation's first offshore wind farm—five wind turbines off Block Island, Rhode Island.

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Offshore wind, he says, also has a big advantage over onshore wind in that the components for on land turbines have “real sizing constraints”—they must be transported “over roads and bridges and around corners.” Offshore wind turbines can be assembled at coastal sites and then “taken by barge off-shore.” That's why, he said, the average size of a wind turbine on land is two

to three megawatts while offshore turbines are six to eight megawatts. And the larger wind turbines are, “the more energy they are able to harvest out of the air.” There has been worry among fishing interests on eastern Long Island, but Plummer said that Deepwater Wind’s turbines will be a mile apart providing plenty of room for fishing. He says Deepwater Wind wants to “work closely” with the fishing community.

As for the concern of birds getting killed, he said Deepwater Wind conducted a two-year study using “avian radar” and found that birds in migration hug the coast and are not out where the Deepwater Wind turbines would be.

Although LIPA has not been bullish on offshore wind since former chairman Richard Kessel, a great advocate, left the authority, New York Governor Andrew Cuomo is highly enthusiastic. In January in his “State of the State” address he announced an initiative involving government “at all levels” and the citizenry. He described offshore wind as an enormous opportunity. The National Wildlife Federation applauded Cuomo’s “commitment to clean energy.” Said its Northeast Regional Director Curtis Fisher: “For the first time today, a New York governor highlighted the important role offshore wind power must play in its energy future.”

Karl Grossman is a veteran investigative reporter and columnist, the winner of numerous awards for his work and a member of the L.I. Journalism Hall of Fame. He is a professor of journalism at SUNY/College at Old Westbury and the author of six books. Grossman and his wife Janet live in Sag Harbor.

Suffolk Closeup is a syndicated opinion column on issues of concern to Suffolk County residents.

Deepwater Wind weighs Brooklyn to stage potential LI project

Updated February 24, 2016 9:56 PM

By Mark Harrington mark.harrington@newsday.com 

Deepwater Wind LLC, a Rhode Island company building the country's first offshore wind farm, near Block Island, has taken an early look at the Brooklyn waterfront for a staging site to build a project off the South Shore of Long Island, a company official said Wednesday.

Eying the waterfront site, the South Brooklyn Marine Terminal, could be Deepwater's first step toward building a South Shore wind farm that would generate power for New York City. But any such project is still at least seven years away.

"It's really nothing more than us doing long-term planning for a point when the city is looking to procure offshore wind" power, said Deepwater chief executive Jeff Grybowski. Deepwater's interest in Brooklyn was reported earlier by Bloomberg News. Several entities have already proposed wind farms in the federal waters off the coast of Long Beach.



Wind-energy developer Deepwater Wind completes the foundation work for a five-turbine solar array off the coast of Block Island. Photo Credit: Deepwater Wind

LIPA, Con Edison and the New York Power Authority have proposed a 200-turbine wind farm 11 miles from shore and extending east. Two other companies have floated competing proposals.

“That general area is a great wind resource and a really good location for an offshore wind farm,” Grybowski said. “It’s an interesting site for sure. But there’s nothing imminent in terms of any type of arrangement in securing rights for that site.” Federal authorities examining the proposals last year estimated any project would take at least seven years to study, approve and construct. Long Island fishing groups have opposed the location.

Deepwater, which last year proposed a 15-turbine wind farm 30 miles from Montauk to supply LIPA with power for the South Fork, would build any South Shore wind farm well beyond 11 miles, Grybowski said.

“We would never build anything that close to the Island,” he said, calling 15 to 18 miles more appropriate. He also said 2022 was a “conservative estimate” for construction of any project. The South Fork wind proposals, if accepted by LIPA/PSEG, would produce energy by 2019 or 2020. PSEG is currently evaluating the proposals.

LIPA and PSEG separately are seeking bids for proposals to supply capacity in Far Rockaway. Grybowski said Deepwater doesn’t plan to offer a wind farm for that bid request.

Offshore wind in the United States has long been stymied by high costs. The LIPA/ConEd/NYPA project when first proposed in 2011 had a price tag of up to \$4.6 billion.

Providence-based Deepwater in July began construction of a 30-megawatt wind farm to supply power to Block Island. When completed it would be the first in the country. Deepwater has also announced plans for projects near Martha’s Vineyard in Massachusetts and along the New Jersey shore.



The South Shore Press

SUFFOLK CLOSEUP

Posted by SouthShorePress on February 23, 2016



An energy revolution is happening east of Long Island.

Deepwater Wind is constructing the nation's first offshore wind farm—five wind turbines off Block Island.

Deepwater Wind has emerged as the leading offshore wind company in the United States. It is seeking to follow its Block Island project, to be in operation this year, with what it calls Deepwater ONE, 30 miles southeast of Montauk. Deepwater ONE would initially involve 15 turbines but the goal is for eventually 200—and their generating a significant portion of Long Island's electricity.

And Deepwater Wind is working to follow that up with Garden State Offshore Energy— a joint venture with PSEG—with ultimately 200 wind turbines off New Jersey.

A key innovation made by Deepwater Wind 's figuring out how wind turbines can be placed in deep water—as reflected in its name—over the horizon and out of sight.

This eliminates the complaints heard on Long Island 15 years ago when the Long Island Power Authority (LIPA) proposed a wind farm off Jones Beach which also were raised on Martha's Vineyard when the Cape Wind company sought to build a wind farm off that Massachusetts island.

The need to place wind turbines in relatively shallow water and close to shore in was a result of “old technology,” says Clint Plummer, vice president of development for Deepwater Wind. However, Providence, Rhode Island-based Deepwater Wind has drawn from technology established in offshore gas and oil drilling and the European experience with offshore wind to develop wind turbines that can be placed way out to sea. Also, he notes, the wind is stronger there.

“Our focus is to avoid the controversy entirely by locating wind turbines over the horizon,” says Mr. Plummer.

The U.S. has been exceedingly slow in moving ahead on offshore wind—a technology that's been booming in Europe, notably in the United Kingdom, Denmark and Germany. There are now 3,000 wind turbines off Europe. “Offshore wind is a vitally important resource for densely populated coastal areas,” says Mr. Plummer. “The European recognized that...The first offshore wind farm in the world was built off the coast of Denmark in 1991” and is “still operating.”

Some \$20 billion a year is being invested in offshore wind, he says, and 85,000 people employed. “It has become a massive global industry.”

“It's a big industry producing big results,” says Mr. Plummer. “We have a real opportunity here in the United States particularly in the Northeast—Long Island, New England, the Mid-Atlantic States.”

This part of the U.S. relies on old power plants and there'll be a need for a “massive change-over.” Offshore wind “can be a big part,” he says, in “replacing the old, retiring, dirty and expensive fossil fuel plants” as well as “retiring nuclear facilities.”

For a cost the same or less as building conventional power plants, there could be offshore wind farms, he says. “We can do it cost-effectively. We can do it without controversy by installing wind turbines far enough offshore so they are over the horizon, and out of conflicted areas—shipping lanes and productive fishing areas.”

For its Deepwater ONE project, Deepwater Wind also seeks to combine energy storage with production. It is proposing two battery energy storage facilities on industrially zoned sites in Montauk and Wainscott to hold power for when the wind lightens up.

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THE EAST HAMPTON PRESS

THE EAST HAMPTON PRESS | FEBRUARY 10, 2016

ON THE STREET

What are your thoughts about constructing an offshore (30 miles) wind farm that could supply a significant portion of our future energy needs?



Kaleb Fisher
Montauk

Seems like a good idea to me. Any clean alternative source of energy is welcome.



Chris Russo
Amagansett

It's an excellent idea. It's a good alternative to building a new fossil fuel-burning plant. There would be minimal environmental impact. There's lots of ocean out there.



Sally McGraw
Montauk

I have mixed feelings. Obviously, clean energy is good but I do have concerns about disruption of flight migrations and of underwater habitats.



Joseph Martin
East Hampton

I like alternative sources of power. I would be in favor. There may be some disruption of commercial fishing, especially during construction, but it is worthwhile doing.



Mark Levy
Montauk

It's a good solution to our growing electrical needs. I've seen wind farms in Quebec, Ireland and other places. We must commit to renewable sources: solar, wind, tidal, all of them.

East Hampton Energy Sustainability
Committee In Favor Of Plans For
Offshore Wind Farm

By Jaime Zahl

Feb 9, 2016 1:31 PM



The East Hampton Energy Sustainability Committee hosted a presentation by Deepwater Wind Energy on Thursday morning at Town Hall to introduce the company's proposal for an offshore wind farm and two battery operated storage systems to be located in East Hampton.

The plan is part of the Rhode Island developer's submission to LIPA and PSEG's request or proposal to find a solution to the South Fork's growing need for energy sources. The 90-megawatt, 15-turbine wind farm would be located 30 miles southeast of Montauk, far enough to be over the horizon, while the energy storage systems, consisting of lithium-ion battery technology, would be built on Industrial Road in Montauk and at the Wainscott Commercial Center, said the company's Vice President of Development Clint Plummer.

"Wind is a massive global resource, something that makes sense for places that are densely populated," Mr. Plummer told members of the committee and community members in attendance. According to Mr. Plummer, the location of the proposed offshore wind farm is like "the Saudi Arabia of wind"—plentiful and accessible.

“It’s the best wind source in the country. We’d be providing 25 to 30 percent of energy at any given hour on the South Fork,” said Mr. Plummer. “The benefit of combining [the wind farm] with storage is that we can draw energy, store it and get back on grid when needed.”

According to Deepwater, the wind farm would provide power to about 50,000 homes across the South Fork. The company is already in the midst of constructing the first offshore wind energy program in the United States off Block Island—15 minutes south of the coast of Rhode Island and 15 miles east of Montauk Point. Mr. Plummer said the construction is halfway through and it will be fully operational by next year.

Meanwhile, LIPA and PSEG are set to announce their decision on the new wind farm off Montauk in May. If Deepwater’s proposal is selected, construction could begin as early as 2019, said Mr. Plummer. Following the meeting, former chairman of the Energy Sustainability Committee Frank Dalene said 100 percent of the committee was in favor of the proposal.

“It’s a no-brainer,” he said. “It’s an untapped resource. We have to look to Europe, who has been doing this for a long time now.” Mr. Dalene said in the past year Denmark made history by operating the entire country’s electricity for an entire day with energy produced from an offshore wind farm.

“The fact that we haven’t tried it yet is really a shame,” he said. However, many members of the committee have begun brainstorming ways to voice their support for Deepwater’s plan in order to make the offshore wind farm a reality for the South Fork.

Some of the committee members will make their opinion known by attending an upcoming LIPA board meeting on March 16. The committee said they have also asked East Hampton Town Supervisor Larry Cantwell to write a letter to LIPA and PSEG.



East End Beacon

Stories We're Watching in 2016

Posted by **Beth Young** January 2, 2016



Montauk Light

This past year was a year of wake-up calls for the changing environment of the East End, and we're going to be closely following what our local governments do in response to those wake-up calls this year — from the fish die-off in the Peconic Bay, to ever-increasing gridlock traffic on our roads to rampant partying in Montauk and the ongoing debate over how to protect our shores from climate change.

Elections

On a macro level, we're expecting this year to be dominated by the presidential election, and by other national races. Southampton Town Supervisor Anna-Throne Holst left her post at the end of December to pursue a seat in the U.S. House of Representatives this year, but she's not alone in seeking the Democratic nomination — Suffolk County Planning Commission Chairman

David Calone, a venture capitalist from Setauket, is also building a major campaign operation.

Incumbent Congressman Lee Zeldin, a Republican, has been a regular presence on the East End in his first year in office, weighing in on issues ranging from helicopters en route to and from the East Hampton airport to the revitalization of Riverside and Flanders to the preservation of Plum Island, and we expect to see him here quite often throughout campaign season.

We're also looking at likely votes on East End ballots this November on whether to extend the Community Preservation Fund to 2050 and allow 20 percent of that money to be used for water quality projects.

Environment

This past year was a tough one for the Peconic Estuary and the Peconic River, which saw massive fish kills and turtle die-offs early this summer, but it was also a tough year in terms of harmful algae blooms, especially in bodies of fresh water here. We're looking to the Gobler Labs partnership with Southampton Town to determine priority areas for septic system upgrades to private properties throughout Southampton Town, and incoming Southampton Town Supervisor Jay Schneiderman has suggested he'd like to look into incentive programs for upgraded septic systems. We're also carefully watching the latest proposal from Deepwater Wind for an offshore wind park 30 miles off the coast of Montauk, which could help East Hampton reach its renewable energy goals, but has drawn concern from fishermen who travel through the area of the proposed wind field on their way to fishing grounds.

The Future of the North Fork Environmental Council

The North Fork Environmental Council has been one of the loudest voices for the North Fork's environment for more than 40 years, helping guide government policy that has kept much of the North Fork in the rural state it is in today. Current President Bill Toedter has been serving the volunteer organization for five years with a degree of dedication seldom seen in a volunteer. From organizing campaign forums to testifying before the state commission on the future of Plum Island to his constant presence at town board meetings and on the editorial pages of local newspapers, he's been a clear and thoughtful voice for the future of the North Fork.

He's stepping down this year, and the NFEC needs new board members to carry on this work. We'll be watching this one carefully.

Montauk, Montauk, Montauk

The issues facing Montauk may seem less pressing in the dead of winter, but the partying that went on there last year is bound to return this summer. While East Hampton's initial response — increasing policing and code enforcement — did dampen the situation a bit, the town's long term efforts may have diminishing returns.

We'll also be watching the town's implementation this spring of a controversial rental registry, designed to address overcrowding and unsafe rental houses throughout town. And what of the giant mess of sandbags being installed along Montauk's oceanfront? Well, Mother Nature will

doubtless be weighing in on that. In the meantime, East Hampton environmental groups are urging the community to get involved with the town's Coastal Assessment and Resiliency Plan, underway this year.

Riverside in Hope Mode

The community of Riverside, just south of Riverhead, just received its first zoning update in decades, and we've heard for months that this will bring new investment to the neighborhood. But the plan won't succeed without funding for innovative sewerage solutions, and much depends on Suffolk County in this equation.

The community will be looking to new South Fork County Legislator Bridget Fleming for guidance on this issue, and we'll be following it closely. We'll also be following the community's relationship with Waterfire, an arts organization that has helped revitalize business and community spirit in riverside towns around the world.

We've got a lot of hope in store for good public policy in 2016! Here's to a forward-thinking year.

East Hampton Historical Society Talks Wind Power, Draws Crowd

The event was the first segment of the East Hampton Historical Society's "Winter Lecture Series 2016".

By LISA FINN (Patch Staff) - ☺ January 30, 2016 6:03 pm ET



EAST HAMPTON, NY-The East Hampton Historical Society held the first lecture of its “Winter Lecture Series 2016” on Friday as a crowd turned out to discuss wind power and its future on the South Fork.

EHHS Executive Director Richard Barons presented “Wind Power: A Story of 350 Years of Harnessing Mother Nature” as a standing room only crowd learned about the wide variety, as well as evolution of shapes and designs, of wind power equipment in East Hampton.

In attendance were EHHS Registrar Rosanne Barons and EHHS Executive Director Richard Barons, Ann Sandford, Isabel Carmichael, assistant to Richard Barons, Laurie Weltz, Katie Graham and Trustee Arthur “Tiger” Graham, Guild Hall Executive Director Ruth Appelhof, EHHS Trustee Barbara Borsack and Ted Borsack, EHHS Trustee Mary Busch, Joan Osborne and EHHS Trustee Emeritus Robert Osborne.

For years, town officials have considered various projects with an eye toward harnessing wind power. Most recently, in December, Deepwater Wind, an offshore wind developer based in

Rhode Island, announced a proposal for a new approach to meet the growing energy need on the South Fork with a new offshore wind farm and two new battery energy storage systems.

In response to PSEG-Long Island's request for new local energy resources serving the South Fork, Deepwater Wind is proposing to supply capacity and renewable energy from the 90 megawatt, 15-turbine Deepwater ONE - South Fork project.

“Governor Cuomo has made New York a leader in clean energy. Our new solution supports his goals by combining advanced energy storage technology and renewable energy from offshore wind to deliver clean, cost-effective energy exactly when and where it's most needed,” Deepwater Wind CEO Jeffrey Grybowski said. “Not only will the project reduce air pollution emissions on Long Island, but it'll also defer the need to build costly new power plants and transmission systems on the South Fork.”

This will be the first phase of a regional offshore wind farm the company is developing roughly 30 miles southeast of Montauk, far enough away to be over the horizon. All transmission cables will be buried deep below existing roads and under shoreline features, with no overhead cables or poles.

To complement the wind farm, the company is also proposing building two new battery energy storage facilities – one in Montauk and the other in Wainscott.

The facilities will consist of lithium-ion battery technology, which will be designed and installed by General Electric, and will be located on industrially zoned sites on Industrial Road in Montauk and at the Wainscott Commercial Center, storing a combined 15 megawatts of energy.

The facilities will be operational by 2018.

The unique combination of renewable generation with energy storage provides a cost-effective solution to two challenges.

First, by delivering clean energy directly to LIPA's existing substation in East Hampton, this proposal serves the growing need on the South Fork without adding new oil-fired power plants or larger transmission lines.

Second, by delivering significant quantities of renewable energy to Long Island, the proposal will help to satisfy LIPA's commitment to procure 280 MW of on-island renewable capacity; facilitate the Town of East Hampton's Board mandate to achieve 100 percent renewable energy use by 2030; and support Governor Cuomo's plans to mandate that half of all power used by New Yorkers be generated from renewable sources by 2030.

Construction on Deepwater ONE - South Fork could begin as early as 2019, with commercial operations by 2022.

Deepwater ONE will produce enough energy to power approximately 50,000 homes, displace tons of carbon dioxide emissions annually, and improve air quality on the South Fork.

In July 2013, Deepwater Wind won the 30-year lease to develop the Deepwater ONE project in

federal waters on the Outer Continental Shelf.

The U.S. Department of the Interior's Bureau of Ocean Energy Management (BOEM)'s first-ever competitive lease auction for offshore wind covered two parcels, totaling approximately 256 square miles in the Atlantic Ocean 30 miles east of Montauk.

THE EAST HAMPTON STAR

SHINES FOR ALL

The East Hampton Star

Soaring Demand for Electricity in East Hampton Saps Supplies

Number of accounts has grown by 4 percent, but peak use has risen 44 percent

By Christopher Walsh | December 24, 2015 - 4:06pm



PSEG Long Island is seeking ways to reduce the demand for electricity on the South Fork as well as to increase its supply without resorting to new high-voltage powerlines.

David E. Rattray

Demand for electricity on the South Fork has far outpaced the rest of Long Island, with particularly high usage in the summer and on weekends and holidays — and residential air conditioning is the primary culprit.

Demand has vastly outpaced population growth. Over the last decade, the number of residential accounts has grown by 4 percent, while peak use has risen 44 percent, according to PSEG Long Island, which manages the island's electrical grid on behalf of the Long Island Power Authority. Commercial accounts have grown by 12.3 percent over the same period.

“We continue to build very energy-inefficient homes — big homes — in the Town of East Hampton, and we all keep plugging more stuff in,” said Gordian Raacke, executive director of

the advocacy group Renewable Energy Long Island and a member of the town's energy sustainability advisory committee. "We didn't used to have tablets, three computers at home, and big-screen televisions."

The peak load of 286 megawatts in 2015 is expected to grow to 314 megawatts in 2019 and increase, at an average rate of 2.6 percent, to 341 megawatts by 2022. In the area east of Buell Lane in East Hampton Village, the peak load is projected to be 41 megawatts in 2019 and 54 megawatts by 2030.

Around 22,000 residential customers on the South Fork have central air conditioning, according to PSEG, and some 18,300 have swimming pool pumps. They are largely responsible for residential customers' average annual energy use of approximately 11,500 kilowatt hours, compared to an Islandwide average of 9,700.

"This is the summer population driving that up," Mr. Raacke said of the steadily increasing demand. "That's when you're talking about mansions that run air-conditioners full time, full blast," and property owners that "often don't care about how much it's going to cost in the electric bill."

In looking to increase the generation of electricity for the South Fork, PSEG Long Island issued a request for proposals in June seeking an additional 63 megawatts of electricity to be installed between 2017 and 2019. Without additional, locally produced power, new transmission lines would have to be installed. It is apparent from the request for proposals that PSEG wishes to avoid new lines given the uproar in East Hampton to recently installed transmission lines.

Twenty-one proposals were received from 16 companies by the due date of Dec. 2, offering a mix of conventional and renewable electricity sources.

In addition, Deepwater Wind, a Rhode Island company, has proposed providing the South Fork with electricity generated by 15 offshore wind turbines to be constructed 30 miles from Montauk. The company, which is building a wind farm that will provide power to Block Island, also proposes to build battery energy storage facilities in Montauk and Wainscott. If approved, the project would contribute 33 megawatts to the South Fork upon completion, which could occur by 2022.

In each of the last 10 years, the South Fork's annual peak demand occurred during the afternoon in either July or August, most often on a Saturday as a result of the significant summer-weekend population. The transmission and distribution system as a whole does not peak on weekends, however, because the commercial load is far greater on weekdays. On a peak summer day, up to 60 percent of the South Fork's average residential load is directly attributable to air-conditioning, according to PSEG, which is to choose from among the proposals in May and to begin executing contracts in the fourth quarter of the year.

In its request for proposals PSEG did not stipulate specific technologies, but a summary of responses included battery storage (banks of batteries that are charged during periods of lower

demand and discharged into the electrical grid during peak conditions), combustion turbines powered by biofuels, and "distributed resources," smaller installations spread throughout an area

that could incorporate both batteries and cooperative systems through which PSEG would temporarily deactivate high-consuming equipment, by agreement with the customer, to reduce load.

The latter scheme is based on PSEG Long Island's Utility 2.0 Long Range Plan, adopted last year, which is guided by the idea that smaller resources spread through a service area may be superior to traditional power plants and transmission lines. Other technologies proposed include conventional fossil fuel-based electricity generation and solar power.

Jeffrey Weir, PSEG Long Island's director of communications, would not comment on the specific proposals received but referred to the LIPA board of trustees' 2012 authorization to diversify its resource portfolio. "PSEG is well on our way to fulfilling the trustees' commitment of renewables to our energy portfolio," he said on Tuesday. The company, he said, "wants the best thing for Long Island, not just in price but what's best for public policy."

Mr. Raacke hoped that PSEG would meet the South Fork's growing demand by "doing the right thing and selecting clean energy, and not more polluting, dirty, inappropriate fossil-fuel technology." He pointed to the trend toward solar installations that gained momentum on Long Island, if not on the South Fork, this year.

"Islandwide, 2015 has seen huge growth over prior years," he said, with an estimated 25,000 installations by year's end. He also pointed to Gov. Andrew M. Cuomo's directive to the Public Service Commission, issued last month, to adopt a requirement that the state generate 50 percent of its own electricity from renewable sources by 2030.

Deepwater Wind's proposal, coming one year after LIPA's board of trustees rejected a proposed offshore wind farm in favor of 11 solar installations, is particularly intriguing, Mr. Raacke said. "They have scaled it down to match the peak demand, and they've coupled it with storage to guarantee to meet peak demand," he said. "The wind has very good peak matching, but there could be a hot summer afternoon when the wind is not blowing strongly enough. That's why they have the batteries, to basically guarantee power at all times during those few peak demand events during the summer."

That, he said, would mark "the first time a renewable energy developer competes head to head with a conventional fossil technology. That's changing the game, and is an interesting thing to watch. It could be very attractive to LIPA and PSEG, but we won't know until May."

90-Megawatt Wind Power Project Proposed Off Montauk



THE DEEPWATER ONE WINDFARM AREA. PHOTO CREDIT: COURTESY DEEPWATER WIND.

DECEMBER 15, 2015 BY BRENDAN J. O'REILLY

Offshore wind farm developer Deepwater Wind is proposing a 15-turbine project 30 miles east of Montauk to provide renewable energy for the South Fork. The wind farm would fulfill East Hampton Town's pledge to get 100% of its electricity from renewable sources, and then some, while also moving the Long Island Power Authority (LIPA) closer to its goal of adding 280 megawatts of renewable energy to its grid.

Dubbed Deepwater ONE, the 90-megawatt wind farm could power 50,000 homes, according to

Deepwater Wind, which says construction could start as early as 2019, with completion by 2022.

“We hope that LIPA, PSEG and the state of New York take this proposal seriously,” East Hampton Town Supervisor Larry Cantwell says.

Deepwater Wind won a 30-year lease of 256 square miles in the Atlantic Ocean on the Outer Continental Shelf in 2013. The site has the potential for 200 wind turbines—this first phase to serve the South Fork would represent just 7.5% of the capacity. Later phases could serve New England and more of Long Island.

“We think it’s one of the best areas to build offshore wind in the world,” says Clint Plummer, the vice president of development at Deepwater Wind. He points to the area’s proximity to regions that are seeking new sources of energy, while being far enough away from the coast that the turbines will not be visible from land.

The water is also relatively shallow, he notes. The depth is between 90 and 120 feet, while the turbines will stand 600 feet tall from the water’s surface. Comparatively, he says the Gulf of Mexico—where wind farms have also been pitched—is several thousand feet in depth.

Deepwater Wind is responsible for the United States’ first offshore wind farm, the five-turbine Block Island Wind Farm, which is presently under construction and expected to be operational by this time next year. Deepwater ONE will take advantage of the lessons learned from the Block Island Wind Farm, and a larger scale, to deliver electricity at a more competitive rate, Plummer says.



Compared to building new fossil fuel or solar projects on Long Island, Deepwater ONE would deliver electricity for approximately the same cost, he adds.

Transmission cables would be buried deep below roads and there would be no new overhead cables or poles required to deliver the energy to the LIPA substation in East Hampton and Deepwater Wind’s proposed battery energy storage facilities in Montauk and Wainscott.

“The details are going to have to be worked out and subject to public participation,” Cantwell says. “The utilities will all be underground, which is a major plus, but the locations of the storage facilities will be subject to a local site planning process and public participation.”

The storage facilities—on Industrial Road in Montauk and at the Wainscott Commercial Center—would use General Electric lithium-ion battery technology. Forecasted to be operational by 2018, the facilities could store 15 megawatts of energy between them.

East Hampton **Patch**

[East Hampton Patch](#)

ICYMI: Deepwater Wind Proposes Offshore Wind Project on South Fork

Check out this story reported earlier this week on East Hampton Patch.

By PRISCILA KORB December 12, 2015



In case you missed it, here's a story that appeared earlier this week in East Hampton Patch:

Deepwater Wind, an offshore wind developer based in Rhode Island, recently announced a proposal for a new approach to meet the growing energy need on the South Fork with a new offshore wind farm and two new battery energy storage systems. In response to PSEG-Long Island's request for new local energy resources serving the South Fork, Deepwater Wind is proposing to supply capacity and renewable energy from the 90 megawatt, 15-turbine Deepwater ONE - South Fork project.

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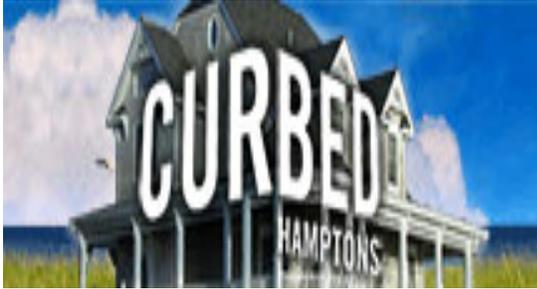
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Construction on Deepwater ONE - South Fork could begin as early as 2019, with commercial operations by 2022.

Deepwater ONE will produce enough energy to power approximately 50,000 homes, displace tons of carbon dioxide emissions annually, and improve air quality on the South Fork. In July 2013, Deepwater Wind won the 30-year lease to develop the Deepwater ONE project in federal waters on the Outer Continental Shelf.

The U.S. Department of the Interior's Bureau of Ocean Energy Management (BOEM)'s first-ever competitive lease auction for offshore wind covered two parcels, totaling approximately 256 square miles in the Atlantic Ocean 30 miles east of Montauk.



Curbed Hamptons

Another Offshore Wind Farm Proposed 30 Miles from Montauk

December 10, 2015, by Laura Euler



Earlier this year, a proposal by **Deepwater Wind** for an offshore wind farm was scuttled by LIPA in favor of solar arrays, due to cost. In response to a new LIPA/PSEG request, the company is now proposing another facility, a **15-turbine 90-megawatt array** about 30 miles off the coast of Montauk and 20 miles off Rhode Island. This area is touted by the company as the **best site for wind energy** in the eastern United States.

LIPA/PSEG's request is for proposals to produce about 169 megawatts of power. (A megawatt powers around 800 homes.) There's a growing need for power on the South Fork. The Deepwater proposal would include **two large batteries to store power** when it's not needed by the grid.

Quoted in *Newsday*, Jeff Grybowski, the chief executive of Deepwater, said, "We think that stacked up against the alternatives, including solar and peaking power plants, that offshore wind is by far the most economic choice."

- Deepwater Wind proposes new offshore wind farm 30 miles from Montauk [Newsday]

THE EAST HAMPTON STAR

SHINES FOR ALL

THURSDAY, DECEMBER 10, 2015

For 'Green' Energy

The South Fork could, within just a few years, see a significant amount of its electricity generated by offshore windmills. Potentially, this is good news for reducing the carbon emissions associated with global warming as well as other forms of atmospheric pollution. But it is far from a sure thing.

Consumption of electricity on the South Fork is expected to continue to grow, outpacing population increases, with most of the demand — as much as 60 percent — coming from residential summertime air-conditioning. If there are no new local sources, new high-voltage transmission lines would be required. Considering the controversy last time new lines were run in East Hampton, the power company might have good reason, beyond cost savings and the environment, to seek alternatives.

Several companies, including Deepwater Wind, have submitted proposals to the Long Island Power Authority and PSEG Long Island for generation and load-reduction projects. Deepwater would put windmills about 30 miles southeast of Montauk, which would be connected to two battery facilities, one in Montauk, the other in Wainscott. Other proposals also are pending to help PSEG meet peak power demands; Deepwater is just the first to make its bid public.

In supporting letters to LIPA and PSEG, an ad-hoc consortium of environmental and civic organizations has strongly argued for offshore wind power. Sustainable projects like Deepwater's, it said, would ensure reliable, clean energy without requiring new, dirty, and expensive fossil-fuel plants. This is a compelling argument. The very real threat of rising sea level caused by climate change should put "green" electricity at the top of the selection process as bids are considered.

THE STAR

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December 10, 2015

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Deepwater Wind Proposes New Offshore Wind Plan for the South Fork

December 9, 2015 by *Beth Young*



An artist's rendering of one of Deepwater Wind's turbines.

After losing its bid last year to build a 210 megawatt wind farm 30 miles off the coast of Montauk, Deepwater Wind has put together a new, smaller project for the site that they're hoping will meet the South Fork's specific energy needs.

The 90-megawatt project, still called Deepwater ONE, was submitted to LIPA and PSEG-Long Island last week. It would be in the same location as last year's project, but would tie into the South Fork's electric grid with two new GE battery energy storage systems at existing electric substations in Montauk and Wainscott. The original project had been slated to tie into the grid near the Shinnecock Canal.

The project has already received the support of numerous environmental organizations on the East End, including Group for the East End, East End Climate Action Network,

DefendH2O, Concerned Citizens of Montauk, the North Fork Environmental Council and

Renewable Energy Long Island.

In a letter to PSEG-Long Island and LIPA corporate officers last week, members of the environmental groups said the electric utility companies “have the opportunity to put Long Island and New York on a pathway toward a cleaner, more resilient and affordable energy future.”

“Renewable energy projects such as Deepwater Wind’s proposal to bring new capacity to the South Fork with an offshore wind project, complemented by energy storage, offers an opportunity to chose locally-produced clean power which is available during times of peak demand in summer,” they added. “This goes a long way to ensure reliable and clean energy capacity for the South Fork without having to build costly and harmful fossil energy peaker plants and unsightly transmission lines.”

Deepwater Wind Vice President of Development Clint Plummer said in an interview Tuesday that the wind company has tailored this project in response to a specific LIPA and PSEG-Long Island request for proposals to help meet peak demand on the South Fork, regardless of whether that power is produced by renewable energy or fossil fuels. “It didn’t draw a lot of attention from the sustainability community because it focused on a limited area on the South Fork,” he said. “We’ll be competing head to head with proposals to build new fossil fuel powered plants on the South Fork.”

Mr. Plummer said his firm expects to hear a response from PSEG-Long Island and LIPA in May of 2016. If Deepwater wins the bid and can get a finalized power purchase agreement by the end of 2016, they expect to have all permits in place by 2019 and be able to have the wind farm in service by 2022.

East Hampton Town has made a commitment, based to large degree on the municipality’s faith in offshore wind, to produce all of its energy from renewable sources by the year 2030, and New York Governor Andrew Cuomo has pledged to produce half of New York’s energy through renewable sources by 2030 as well.

The project submitted to LIPA last week would include 15 six-megawatt turbines and would generate enough energy to power approximately 50,000 homes. The original proposal had been for 35 turbines. Deepwater Wind has enough space at their site 30 miles off of Montauk to install 200 turbines, and received a 30-year lease on the 256- square-acre site in 2013 from the federal Bureau of Ocean Energy Management.

Mr. Plummer said there are three big differences between this project and the one proposed last year: It is less than half the size, it is plugging into the grid at a different location, where PSEG is looking for extra capacity, and the project is designed to offset the need to build new fossil fuel plants on the South Fork.

The battery storage sites will consist of lithium-ion batteries designed and installed by General Electric on industrially zoned sites on Industrial Road in Montauk and at the Wainscott Commercial Center. Together, the sites could store 15 megawatts of energy.

Mr. Plummer said the cost of all aspects of renewable energy — from wind turbines to battery storage to solar panels, has come down dramatically in the past several years, while the technology continues to improve, making renewable energy available at a competitive price, especially in areas like Long Island, which has some of the highest electric rates in the country.

“The overall perception by utilities on renewables has changed dramatically in the past few years,” he said. “With advancements in technology and a U.S.-based supply chain, we’ve seen the cost of technologies fall dramatically.”

“Particularly in places like Long Island, with a dense coastal population where it’s difficult and expensive to build anything else, offshore wind just makes sense,” he added.

Deepwater Wind plans to use the same technology for the Deepwater ONE site off of Montauk as they’re using for their Block Island Wind Farm, the country’s first offshore wind farm, under construction off the coast of Block Island. They expect that wind farm will be operational by the end of 2016.

“Last week we wrapped up the major offshore construction for the season, and all five foundations are in the water,” said Mr. Plummer of the Block Island project. “Next spring we’ll come back to do the installation of the cable systems and the turbines.”

Mr. Plummer said his company envisions the current Deepwater ONE proposal as the beginning of a regional energy center that could also power the North Fork and other states near their site off of Montauk.

“With this project, we are not only helping Long Island to reach a 280-megawatt renewable energy goal, we’re not only helping East Hampton and Governor Cuomo meet their renewable energy goals, but we’re also solving a real fundamental electric reliability issue,” he said. “In this case we are directly offsetting the need for PSEG, LIPA and ratepayers to fund building other

forms of energy generation like fossil fuel power plants and transmission lines.”

East Hampton Patch

Deepwater Wind Proposes Offshore Wind Project on South Fork

The project would create a new offshore wind farm and two new battery energy storage systems.

By PRISCILA KORB December 9, 2015



Deepwater Wind, an offshore wind developer based in Rhode Island, recently announced a proposal for a new approach to meet the growing energy need on the South Fork with a new offshore wind farm and two new battery energy storage systems.

In response to PSEG-Long Island's request for new local energy resources serving the South Fork, Deepwater Wind is proposing to supply capacity and renewable energy from the 90 megawatt, 15-turbine Deepwater ONE - South Fork project.

“Governor Cuomo has made New York a leader in clean energy. Our new solution supports his goals by combining advanced energy storage technology and renewable energy from offshore wind to deliver clean, cost-effective energy exactly when and where it's most needed,” Deepwater Wind CEO Jeffrey Grybowski said. “Not only will the project reduce air pollution emissions on Long Island, but it'll also defer the need to build costly new power plants and transmission systems on the South Fork.”

This will be the first phase of a regional offshore wind farm the company is developing roughly 30 miles southeast of Montauk, far enough away to be over the horizon.

All transmission cables will be buried deep below existing roads and under shoreline features, with no overhead cables or poles.

To complement the wind farm, the company is also proposing building two new battery energy storage facilities – one in Montauk and the other in Wainscott.

The facilities will consist of lithium-ion battery technology, which will be designed and installed by General Electric, and will be located on industrially zoned sites on Industrial Road in Montauk and at the Wainscott Commercial Center, storing a combined 15 megawatts of energy.

The facilities will be operational by 2018.

The unique combination of renewable generation with energy storage provides a cost-effective solution to two challenges.

First, by delivering clean energy directly to LIPA's existing substation in East Hampton, this proposal serves the growing need on the South Fork without adding new oil-fired power plants or larger transmission lines.

Second, by delivering significant quantities of renewable energy to Long Island, the proposal will help to satisfy LIPA's commitment to procure 280 MW of on-island renewable capacity; facilitate the Town of East Hampton's Board mandate to achieve 100 percent renewable energy use by 2030; and support Governor Cuomo's plans to mandate that half of all power used by New Yorkers be generated from renewable sources by 2030.

Construction on Deepwater ONE - South Fork could begin as early as 2019, with commercial operations by 2022.

Deepwater ONE will produce enough energy to power approximately 50,000 homes, displace tons of carbon dioxide emissions annually, and improve air quality on the South Fork.

In July 2013, Deepwater Wind won the 30-year lease to develop the Deepwater ONE project in federal waters on the Outer Continental Shelf.

The U.S. Department of the Interior's Bureau of Ocean Energy Management (BOEM)'s first-ever competitive lease auction for offshore wind covered two parcels, totaling approximately 256 square miles in the Atlantic Ocean 30 miles east of Montauk.



New proposal eyed to build wind farm off Montauk

December 9, 2015



The same company, Deepwater Wind in Rhode Island is proposing a new energy producing wind farm 30 miles off the Long Island coast, according to Newsday. (12/9/15)

MONTAUK - A proposal to build a wind farm off Montauk is back on the table. As News 12 reported last year, the wind farm project was rejected. The same company, Deepwater Wind in Rhode Island, is proposing a new energy-producing wind farm 30 miles off the Long Island coast, according to Newsday.

Dec. 9, 2015

Windmill plan for S. Fork

BY MARK HARRINGTON
mark.harrington@newsday.com

Deepwater Wind, the Rhode Island company that has half-completed an offshore wind energy project off Block Island, is proposing a new 15-turbine project for LIPA that will be 30 miles from Montauk.

Like a previous project it proposed for the Long Island Power Authority, the new 90-megawatt array would be set in a portion of a 256-square-mile lease that Deepwater controls around 20 miles from the mainland off Rhode Island. LIPA rejected the previous Deepwater project in favor of 11 solar arrays.

The new project would deliver power specifically to the South Fork of Long Island, and is being proposed along with two large batteries that could store energy from the wind farm when it's not needed by the grid, according to Jeff Grybowski, the chief executive of Deepwater.

The project comes in response to a LIPA/PSEG request for proposals for around 169 megawatts of power needed to fill the growing need for power

on the South Fork. A megawatt powers around 800 homes. Deepwater is one of a number of companies that submitted bids for the South Fork request.

PSEG Long Island spokesman Jeff Weir said the company can't comment on open requests for proposals. LIPA declined to comment.

Deepwater's proposed South Fork project would send energy via a 30-mile cable to a South Fork location that hasn't yet been specified. The battery storage units, which were offered as separate bids in the project, would have the ability to store 30 megawatts and five megawatts in Montauk and East Hampton, respectively, Grybowski said.

He declined to discuss the cost of the project, but said, "We think that stacked up against the alternatives, including solar and peaking power plants, that offshore wind is by far the most economic choice."

Cost was a factor in LIPA's decision last year to select 11 solar arrays over the larger wind farm the company proposed as part of a 280-megawatt renewable energy request for proposals. At issue was the expiration



Wind-energy developer Deepwater Wind has completed foundation work for a wind array off Block Island.

its electricity from diesel generators and must import fuel oil by boat to power them. Deepwater has a power purchase agreement with National Grid to sell energy from the five turbines at 34 cents a kilowatt hour. Grybowski said power from the generators costs as much as 60 cents a kilowatt hour during the peak season.

The Block Island array will sit on foundations in up to 90 feet of water, on piles driven 200 feet into the ocean floor. Laying cable to connect the project to Block Island and the mainland will start in April and be completed in June. Erecting the turbines will start in late summer.

of a 30-percent federal tax credit for wind energy.

Since then, Deepwater has been working to build what is expected to be the country's first offshore wind farm off the coast of Block Island. The company and its contractors worked through the summer and fall to finish installation of foundations for the five

wind turbines, Grybowski said. Work will start up again in the spring, and the 30-megawatt project, which will deliver around 90 percent of Block Island's energy and bring the island its first electrical connection to the mainland, is expected to be in service by the end of 2016.

Block Island currently gets



Offshore Wind Farm and Energy Storage Systems Proposed For South Fork

Dec 8, 2015 [By Jaime Zahl](#)

Deepwater Wind on Monday announced a new proposal for an offshore wind farm and two battery operated storage systems in East Hampton as part of a request for proposals by PSEG Long Island seeking a solution to the South Fork's growing need for energy sources.

The 90-watt, 15-turbine wind farm pitched by the Rhode Island developer would be located 30 miles southeast of Montauk, far enough to be over the horizon, while the energy storage systems, consisting of lithium-ion battery technology, would be built on Industrial Road in Montauk and at the Wainscott Commercial Center, said the company's Vice President of Development Clint Plummer.

Mr. Plummer said the plan builds from Governor Andrew Cuomo's "Renewing the Energy Vision" initiative in that it would provide a clean, renewable option for the South Fork, the fastest growing part of Long Island. "It's intended to be the most attractive option for South Fork communities," he said. "We don't have to build a busy, noisy plant and deliver all the energy that's needed." In particular, offshore wind farms provide one of the most reliable renewable energies, said Gordian Raacke, executive director of Renewable Energy Long Island. He called Deepwater "an ideal match." "[The wind farm] would generate the most energy during times when we need it," said Mr. Raacke. "Anything that generates clean energy and makes it available when we need it is definitely a good [choice]."

Deepwater previously submitted a proposal for an offshore wind farm to the Long Island Power Authority in 2014 after LIPA said it wanted to add 280 megawatts of renewable energy to the utility's resources. However, the plan, which looked to render 210 megawatts of energy, was rejected last December.

In the meantime, Deepwater has been actively constructing the first offshore wind energy program in the United States off Block Island—15 minutes south of the coast of Rhode Island and 15 miles east of Montauk Point. Mr. Plummer said the construction is halfway through and it will be fully operational by next year.

The potential for this enormous step toward reliance on renewable energy has many activists excited at the prospect of a shift in perspective for not only the East End, but the entire country.

"Deepwater is essentially a demonstration project," said Frank Dalene, former chairman an

current member of the East Hampton Sustainability Committee. “[Wind is] such a huge natural resource that can be harnessed with very little impact to the environment. It is something that I want to see developed in the U.S.”

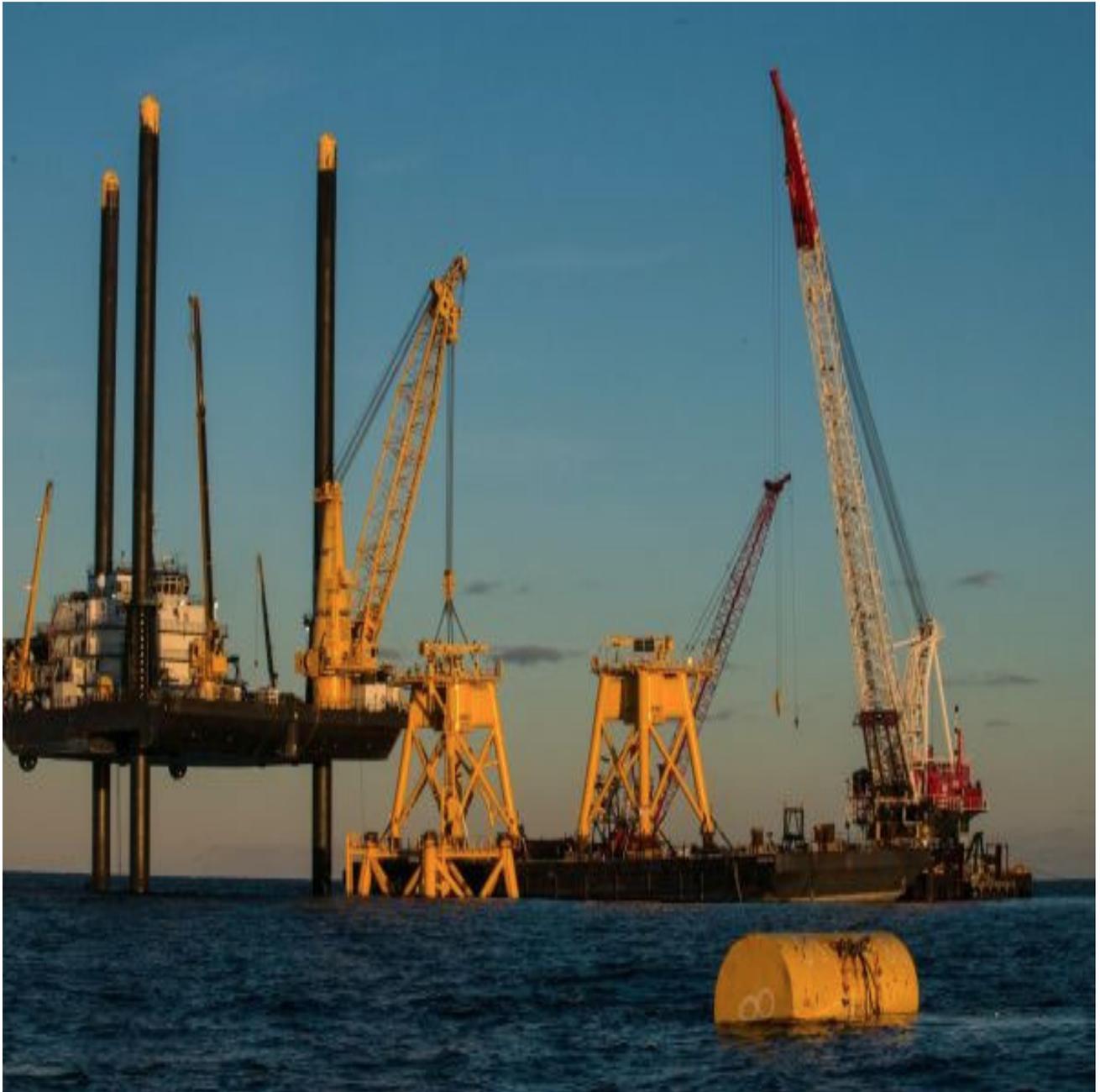
Mr. Dalene said many European countries such as Norway and Germany have already found success with the use of offshore wind farms. “With everything they’ve been doing we have to look at them as leaders,” he said.

Mr. Plummer said PSEG is set to make its decision in May 2016. If PSEG decided to go with Deepwater’s plan, Mr. Dalene said he was certain that East

Hampton would fulfill its commitment to replace 100 percent of the community’s electricity consumption by 2020, a plan initiated by the East Hampton Town Board last year.

Deepwater Wind proposes new offshore wind farm 30 miles from Montauk

December 8, 2015 By Mark Harrington



Deepwater Wind, the Rhode Island company that has half completed an offshore-wind energy project off Block Island, is proposing a new 15-turbine project for LIPA that will be 30 miles from Montauk.

Like a previous project it proposed for the Long Island Power Authority, the new 90- megawatt array would be set in a portion of a 256-square-mile lease that Deepwater controls around 20 miles from the mainland off Rhode Island. LIPA rejected the previous Deepwater project in favor of 11 solar arrays.

The new project would deliver power specifically to the South Fork of Long Island, and is being proposed along with two large batteries that could store energy from the wind farm when it's not needed by the grid, according to Jeff Grybowski, the chief executive of Deepwater.

The project comes in response to a LIPA/PSEG request for proposals for around 169 megawatts of power needed to fill growing need for power on the South Fork. A megawatt powers around 800 homes. Deepwater is one of a contingent of companies that submitted bids for the South Fork bid request.

PSEG Long Island spokesman Jeff Weir said the company can't comment on open requests for proposals. LIPA declined to comment.

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Cost was a factor in LIPA's decision last year to select 11 solar arrays over the larger wind farm the company proposed as part of a 280-megawatt renewable energy request for proposals. At issue was the expiration of a 30-percent federal tax credit for wind energy.

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