



Arthur Kill Terminal

Establishing Staten Island and New York as the hub of the US offshore wind industry



ATLANTIC OFFSHORE

TERMINALS

WTG Assembly Should Occur Onshore to Minimize Cost



From the New York State Offshore Wind Master Plan, Assessment of Ports and Infrastructure (December 2017)

Section 3.3.5, Air Draft

"Various logistics strategies may require that some components be transported in a vertical position. For example, turbine installation vessels are most efficient when towers are transported vertically and preassembled...

For early wind projects in the UK, it had been suggested that installation facilities have a minimum of 100m (330 ft.) air draft from the staging area all the way to the OSW farm. However, due to increasing turbine and foundation sizes, most developers and contractors prefer sites with unlimited air draft.

It may be possible to utilize sites with more limited air draft restrictions by shipping some components horizontally, or completing more of the installation (e.g., blades installed onto hub) offshore. However, offshore installation is typically less efficient, resulting in increasing overall construction prices and high energy costs.



Offshore Wind Needs Suitable Ports for Onshore WTG Assembly

» Unrestricted overhead clearance

- Enables all types of wind turbine transport and installation vessels to access ports directly and load fully assembled and pre-commissioned WTG towers, minimizing construction and commissioning time, complexity, risks, and costs offshore
- » Close proximity to offshore wind project sites
 - Enables shorter installation campaigns resulting in vessel utilization savings, fuel savings, and emissions savings
- » Heavy load bearing capacity
 - Allows for safe and efficient handling of large OSW components within the port
- » Large quay and laydown area
 - Enables access for multiple vessels and storage of multiple sets of large OSW components
- » Deep draft channel
 - Allows for safe vessel access and egress



Most Ports with OSW Potential Have Disqualifying Access Constraints





AKT is New York's Only Suitable Option for an Unrestricted Port



- Other potential NY port sites with unrestricted overhead clearance identified by NYSERDA in a January 2019 study are unfeasible for a variety of reasons, including:
 - Insufficient upland acreage (in some cases, the sites are entirely submerged)
 - City, State, and Federal park designations that would involve protracted public input and approval
 - Swell exposure that would create unnecessary scheduling and safety risks for vessel berthing



NYSERDA 2018 Ports Assessment: Unrestricted Air Draft Facilities, Jan 19

Without AKT, WTGs will be assembled outside of New York





NYSERDA 2019 Solicitation Fact Sheet

CONFIDENTIAL – Atlantic Offshore Terminals LLC

AKT Will Establish NY as the Premier OSW Supply Chain Hub in the US

- » Given that New York is the single largest load center on the East Coast, and has set a goal of building 9000MW of offshore wind energy, it only makes sense for New York to become the premier supply chain hub of the US offshore wind industry
- » In New York State, both in the harbor region and up the Hudson River, there are numerous sites that have been identified as having potential for serving offshore wind-related supply chain and manufacturing businesses
- » By virtue of its central location, unique technical attributes, and proximity to this wide variety of complementary ports and properties, AKT will attract significant additional investment in offshore wind supply chain manufacturing and ancillary facilities
- » AKT will be the catalyst for the development of these businesses and the benefits they will bring to the State





AKT Offers New York an Unparalleled Workforce Development Opportunity



» As part of the construction of AKT:

- AKT will directly create hundreds of jobs for local workers and suppliers under a project labor agreement
- At its expense, AKT will build a workforce training facility that includes classroom training facilities and a mock foundation where workers can obtain hands-on training for safety risks specific to offshore wind construction and operations

» During operations at AKT:

- Offshore wind developers working on New York offshore wind projects will be required to operate under a PLA, and the use of AKT will sustain hundreds of local jobs
- As a result, local operating engineers, ironworkers, electricians, millwrights, laborers, and carpenters will obtain hands-on experience with offshore wind turbine assembly and commissioning
- Workers involved in assembly and staging will be uniquely positioned for offshore installation and operations jobs, as there are currently few qualified workers on the East Coast



AKT Project Team





Boone Davis President & CEO Prior to founding AOT, Boone was a Principal at the Renewables Consulting Group where he worked as a lead consultant and project manager for NYSERDA's Offshore Wind Master Plan and assisted several other public and private sector clients to advance the US offshore wind industry. Prior to that, Boone was the Block Island Wind Farm Project Manager for GE Renewable Energy where he managed the development and operation of the first offshore wind turbine assembly port in the US, and the successful assembly, installation, and delivery of the first offshore wind turbines in the US. Prior to the Block Island Wind Farm, Boone served as Assistant Project Manager for Cape Wind Associates where he was responsible for construction planning, contracting, and managing project development. Boone has in-depth knowledge and significant hands on experience with US offshore wind supply chain, project development, financing, construction, logistics and operations. Boone holds a Bachelor's Degree from Vanderbilt University's School of Engineering.



Charles Dougherty Chief Commercial Officer Prior to joining AOT, Charles served as the Chief Commercial Officer of SmartFlowerSolar, LLC, a distributor of unique solar generation products. Charles also served as the Vice President—Commercial/Finance of Cape Wind Associates and Energy Management Inc. ("EMI"), where he was a member of the senior team leading the development of the first offshore wind farm in the US, and was responsible for negotiating and managing commercial and contractor relationships and working with the CFO in structuring and negotiating equity and debt financing. Prior to his roles with SmartFlower and Cape Wind, Charles was the founder and managing director of BR Strategies, LLC. Charles previously was the Managing Partner of Hill & Barlow and a partner at Foley & Lardner LLP. Charles holds a Law degree from Boston University, and a Bachelor's Degree from Hampshire College.



Shea Thorvaldsen Project Executive Shea Thorvaldsen, the President of TMS Waterfront, has nearly 20 years of experience in commercial waterfront development. Before founding TMS Waterfront, Shea held senior management positions at McLaren Engineering Group, Valsen Marine and D'Onofrio General Contractors. Some notable local waterfront projects he has brought to successful completion are Tomkins Cove, Glen Cove Ferry, Long Branch Pier, Lincoln Harbor Yacht Club, FDR Protection against Marine Borers, Staten Island Homeport, 207th St, Bridge, HRPT Pier 62, City Wide Ferry Service, East and Harlem River Ferry Landings, India Street Pier & Ferry Landing, Hoboken Ferry Terminal, Battery Park City Ferry Terminal, Pier 62, North 5th Street Pier, East 14th Street Pier Repair for ConEd, FPL Energy Rockaways Bulkhead, A11 Dock Shoreline, and Mott Haven Substation. Shea served for years as a commissioned officer in the United States Navy specializing in Electronics and holds a Bachelor's of Science Degree in Civil Engineering from Tulane University.