



Kitty Hawk Offshore Wind Construction and Operations Plan Scoping Meetings

10 Aug 2021

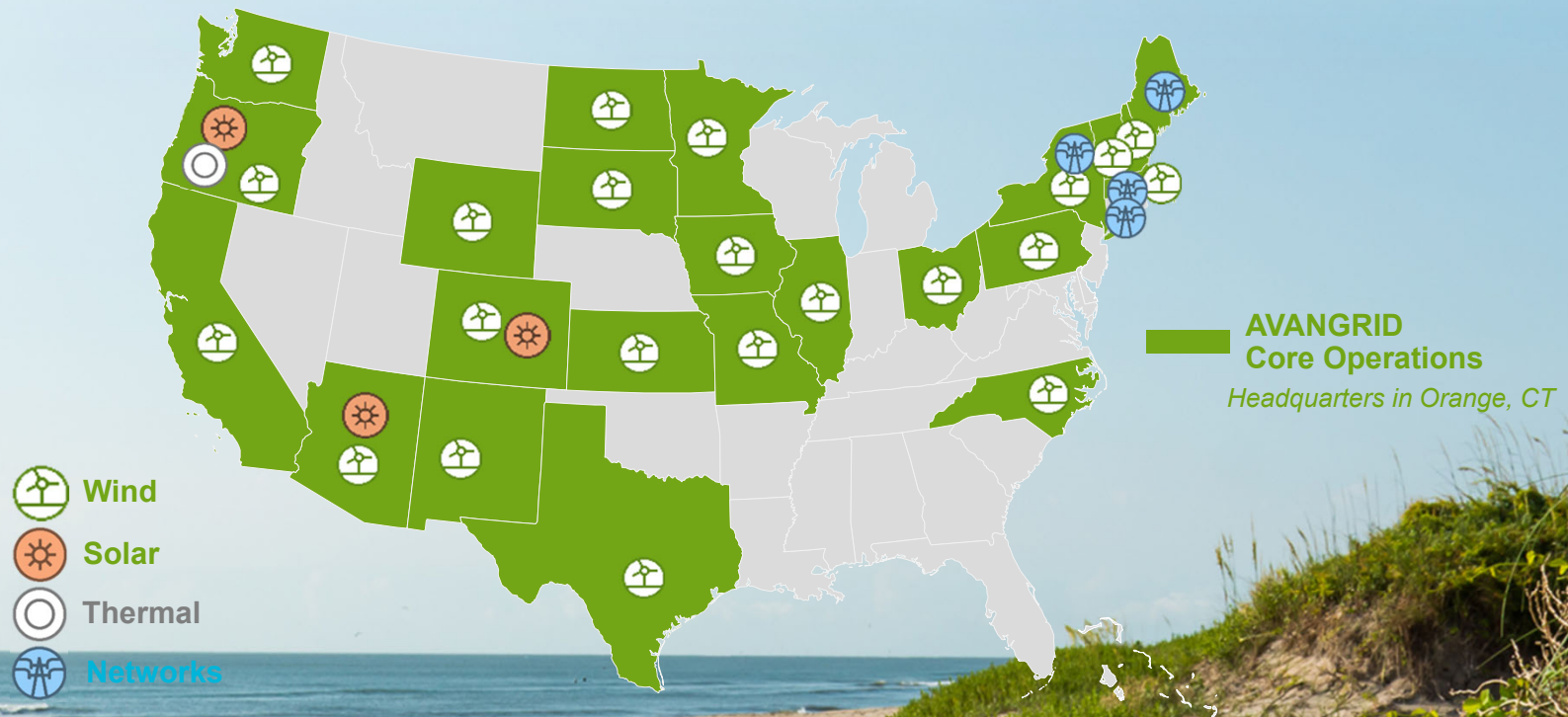
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Avangrid's Geographic Presence

~ \$39 billion in assets with a presence in 24 states
3rd largest wind operator in the U.S.
> 8 GW wind & solar in operation



Kitty Hawk Wind is Part of Iberdrola's Global Offshore Wind Pipeline



Kitty Hawk Offshore Wind Project Introduction



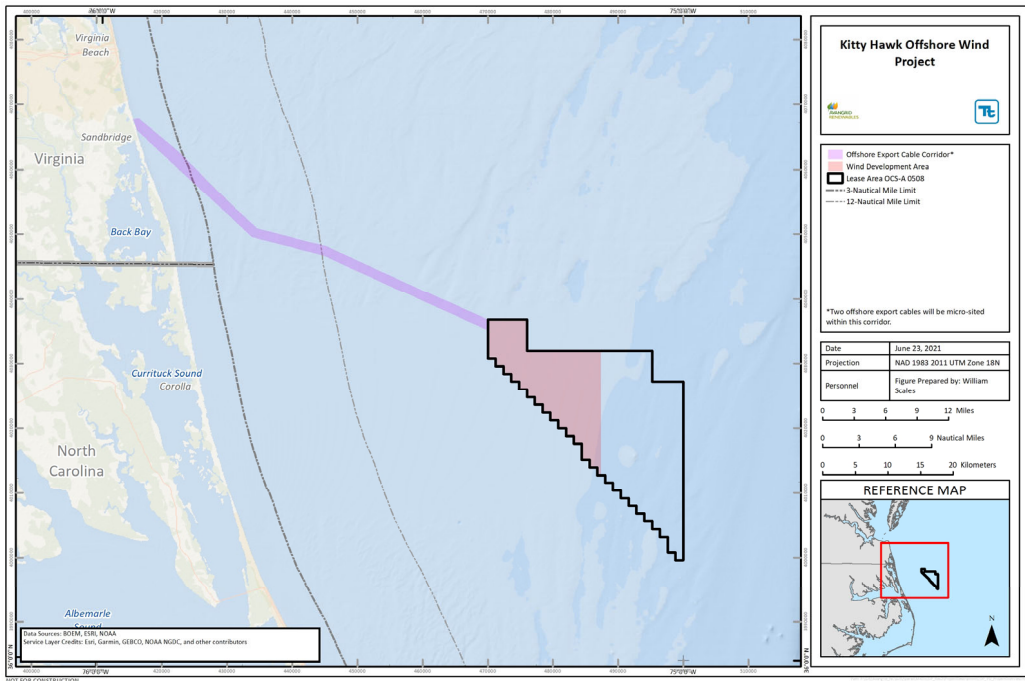


Kitty Hawk Offshore Wind Project Goals

- Deliver sustainable, safe, and healthy domestic energy generation for all Americans through the responsible production of electricity using wind turbine generators.
- Contribute to the Biden Administration's goal of delivering 30 gigawatts (GW) of offshore wind by 2030.
- Contribute to the Virginia Clean Economy Act which mandates the procurement of 5.2 GW of offshore wind by 2034.
- Efficiently and responsibly construct and operate an offshore wind energy facility that enhances the quality and long-term productivity of renewable wind resources located on the Outer Continental Shelf.
- Deploy technically and economically feasible infrastructure that maximizes the sustainable electrical generation within Lease Area OCS-A 0508.

The Project will meet these goals by delivering domestic renewable energy from up to 69 WTCs to Virginia, where it will be interconnected to the PJM managed high-voltage electricity grid and make a substantial contribution to the region's electrical reliability and energy security.

Wind Development Area and Onshore Facilities

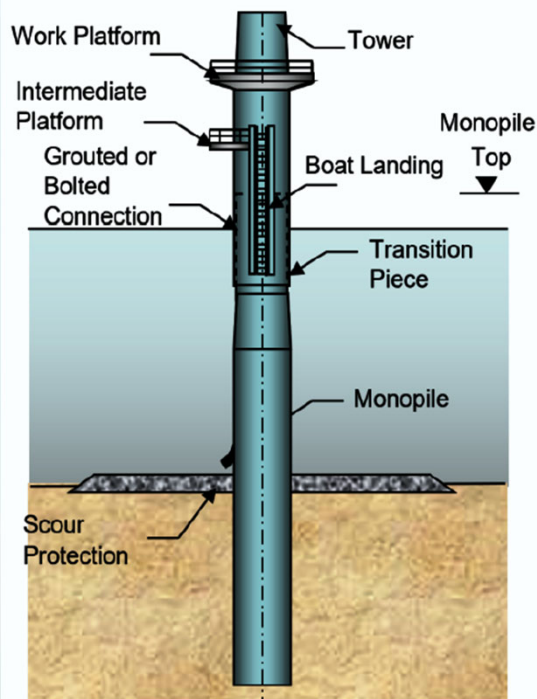


Prior to BOEM's lease auction, the Lease Area (OCS-A 0508) was carefully sited by members of the North Carolina Intergovernmental Renewable Energy Task Force to avoid and minimize potential user conflicts as well as reduce impacts to biological resources.

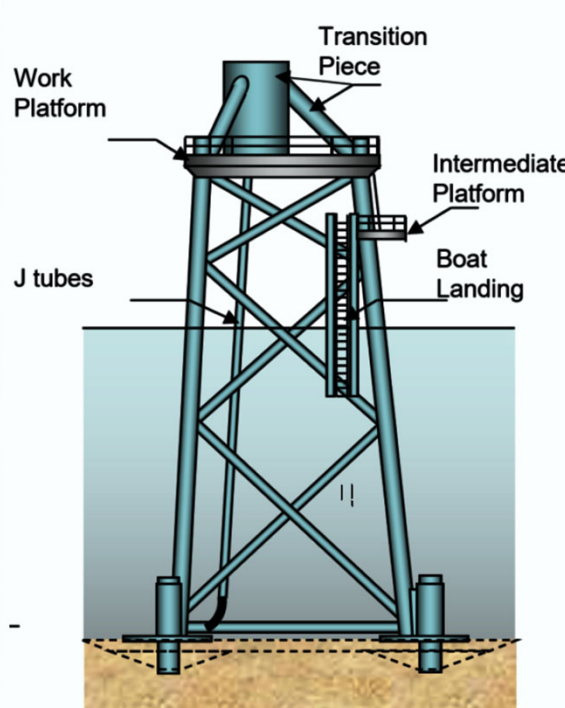
Wind Development Area	Key Project Components
Wind Development Area	19,441 ha (48,040 ac) situated 44 km from the closest point to shore
Wind Turbine Generator	Up to 69 units. <u>Rotor diameter:</u> 285 m <u>Upper tip height:</u> 317.5 m <u>Minimum air clearance:</u> 27 m
Foundation Type	• Monopiles or up to 4-Legged Piled Jacket foundations • Up to three 4-Legged Suction Caisson Jacket foundations may be installed Largest potential seabed footprint (including scour protection) for 70 locations is 225,140 square meters comprised of 67 monopiles and 3 suction caisson jacket foundations.
Offshore Electrical System	One offshore electrical service platform connected to landfall at Sandbridge via two co-located HVAC cables within an 80 km (43 nm) long cable corridor that is up to 810 m in width and a target burial depth of up to 2.5 m beneath the seabed.
Onshore transmission	Up to 9.2 km (5.7 mi) onshore cable to a substation location at Corporate Landing in Virginia Beach, Virginia.

Maximum Design Scenario: Kitty Hawk Wind is requesting evaluation and approval of the full design envelope as detailed above, e.g., 70 locations with the largest potential seabed footprint with the turbine assessed using the parameters described within the design envelope.

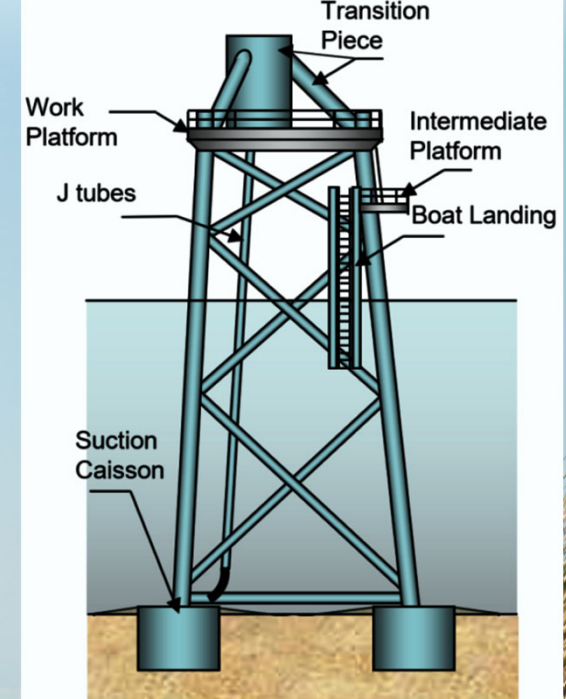
Project Design Envelope: Foundation Types



Monopile
(installed with or without
transition piece)



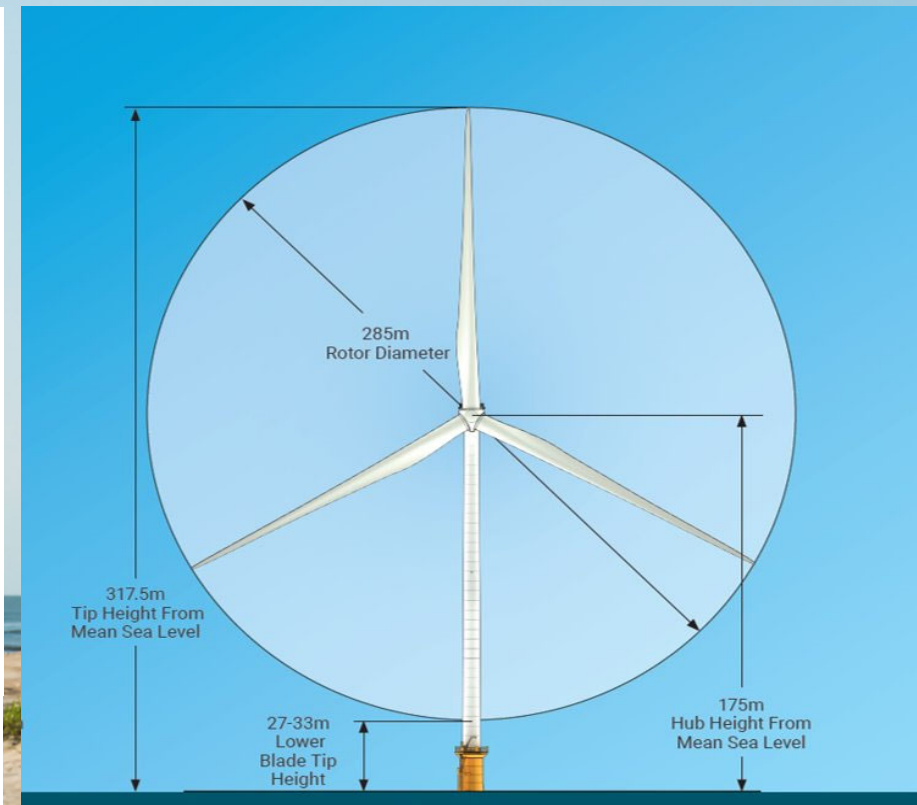
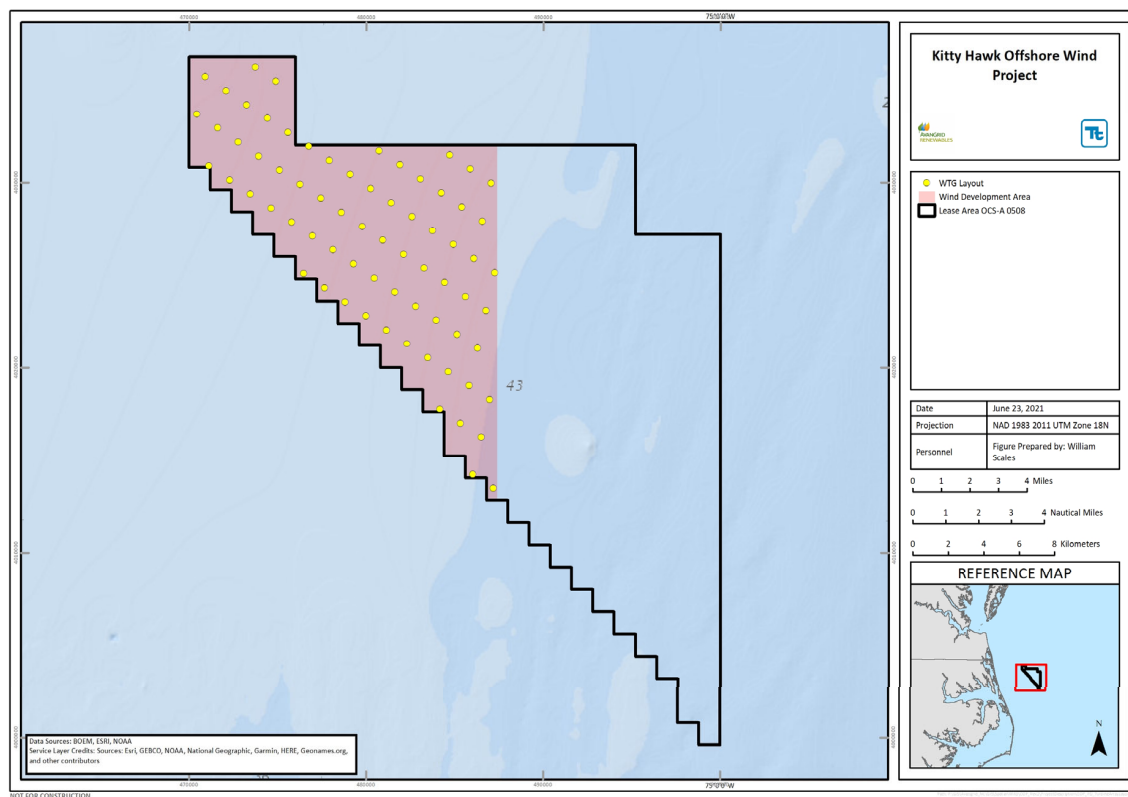
Piled Jacket



Suction Caisson Jacket

Project Design Envelope: WTG Layout and Dimensions

- Array would be laid out on a **northeast/south-southwest axis**, consistent with the predominant trawl tow directionality in the area. Spacing between offshore wind structures (~ 0.8 nm [1.5 km])
- **Maximum** WTG dimensions

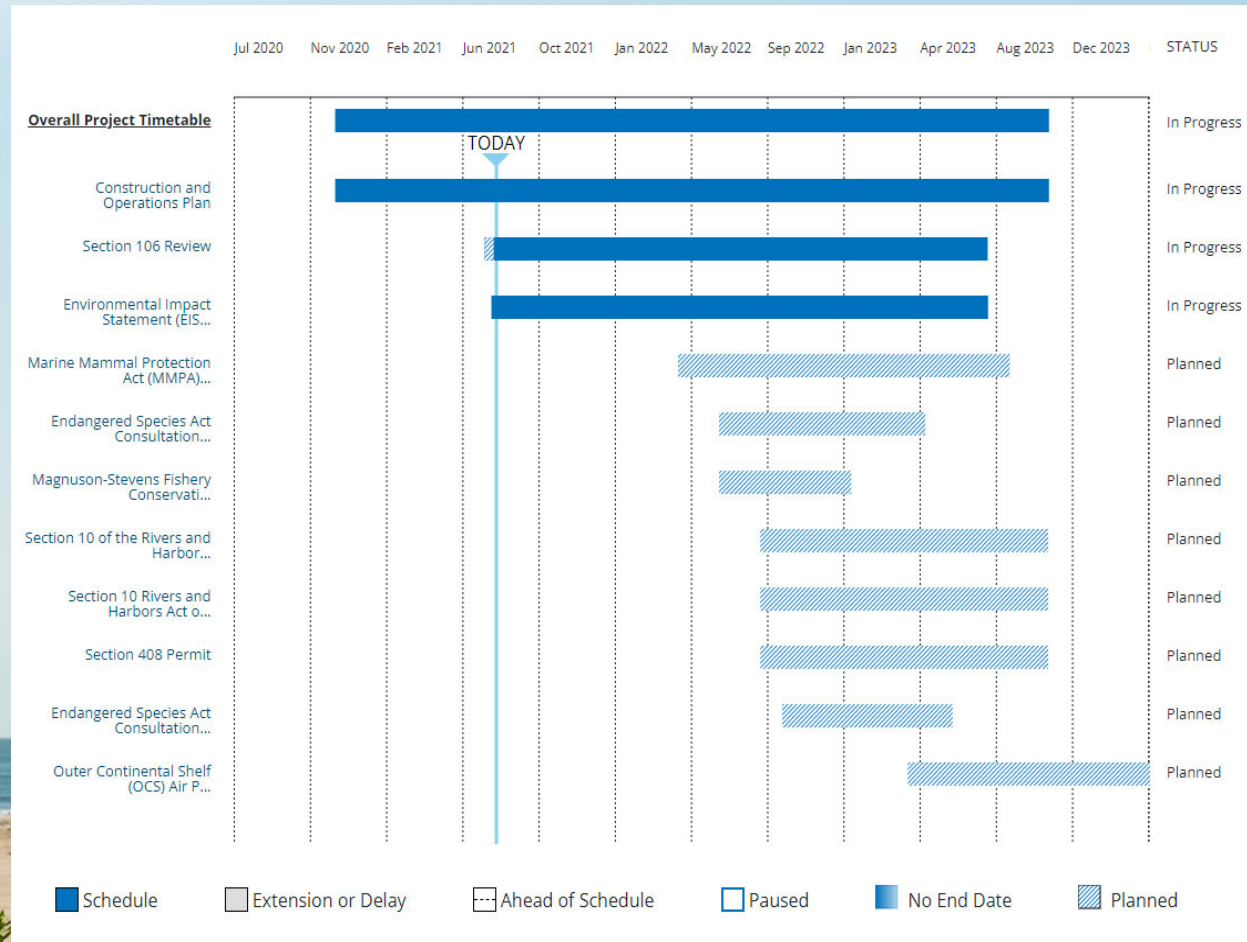


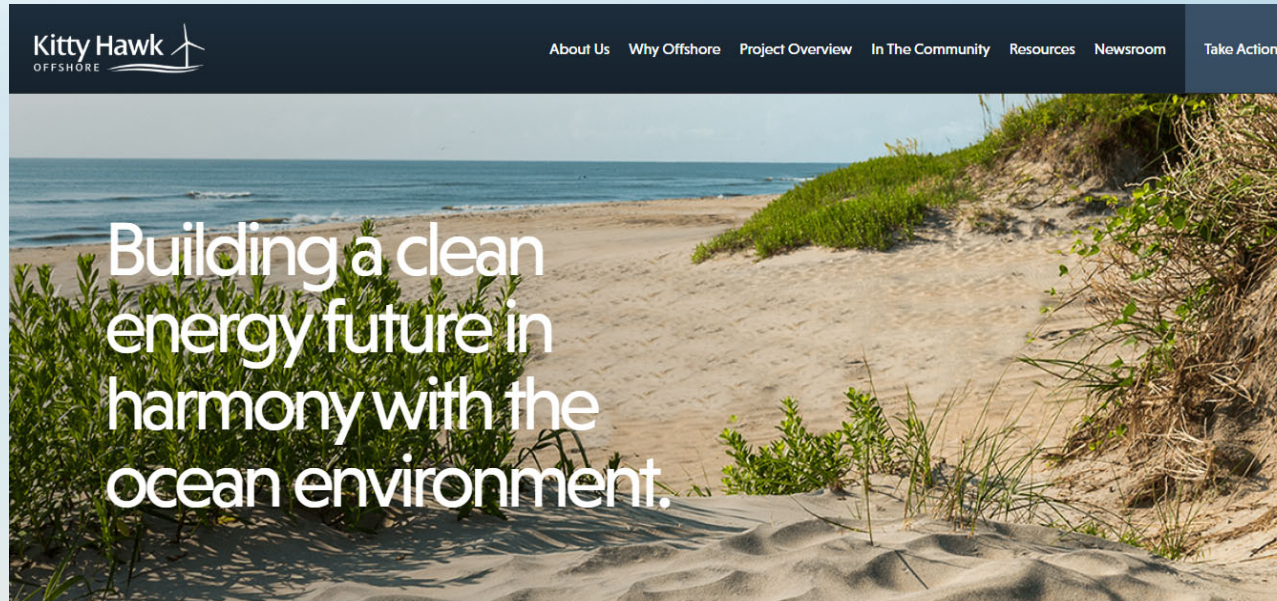
Proposed Construction Schedule

Activity	2024				2025				2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Wind turbine generator (WTG) foundation installation												
Transition piece installation												
WTG installation												
WTG commissioning												
ESP foundation installation												
ESP topside installation and commissioning												
Offshore export cable installation												
Inter-array cable installation												
Onshore export cable installation												
Onshore substation construction												
Landfall construction												

Federal Permit Applications:

- BOEM – 11 Dec 2020
 - DEIS – 30 Sep 2022
 - FEIS – 23 Jun 2023
 - ROD – 3 Aug 2023
 - COP approval – 1 Nov 2023
- NOAA – 2 May 2022
 - Decision: 4 Sep 2023
- USACE – 1 Sep 2022
 - Wilmington & Norfolk Districts
 - Decision: 1 Nov 2023
- EPA – 22 May 2023
 - Decision: 16 Dec 2024
- Section 106 (NEPA substitution)
 - Consultation initiation: 30 Jul 2021





Updates available at: www.kittyhawkoffshore.com

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