Dominion Energy CVOW Pilot Project
Wind Turbine Generator (WTG) Site LNTM Rev 1
March 30, 2020

The following information is requested to assist in issuing appropriate Coast Guard Notices to Mariners:

A. START AND STOP DATES:

Two separate LNTMs were published for these buoys on March 10, 2020, one for the Yellow Special Mark demarcation and one for the wave buoy. This amended LNTM supersedes the previous LNTMs as the wave buoy will serve dual purpose and will be replacing one of the yellow Special Mark demarcation buoys.

The Costal Virginia Offshore Wind (CVOW) Pilot project will deploy 5 yellow Special Mark demarcation buoys to identify the offshore work zone (WTG site) where the Wind Turbines and foundations will be installed. The offshore work zone is established approximately 25 nautical miles east of Cape Henry. The deployment of the buoys is expected to occur between April 2 and April 8, 2020 - weather permitting. The buoys will be moored in the listed positions and until construction activities are finalized. Retrieval of the buoys are planned to occur on or before September 30, 2020.

The project will also deploy a wave/demarcation buoy at the WTG site. The deployment of the wave buoy is expected to occur the week of March 23, 2020, weather permitting and will be moored in the position until September 30, 2020. The wave buoy will serve as a demarcation buoy as well.

B. WATERWAY: GEOGRAPHIC LOCATION and LAT/LONG:

The tug Little Brutus and a connected barge will deploy the demarcation buoys at following positions: (WGS 84 Decimal degrees).

5 yellow Special Mark demarcation and 1 wave/demarcation (D) buoys installed at the WTG site.

A: Latitude 36.89930272 North - Longitude 75.49596563 West

C: Latitude 36.89151042 North - Longitude 75.49586571 West

E: Latitude 36.88371811 North - Longitude 75.49576582 West

B: Latitude 36.89937589 North - Longitude 75.4878969 West

D: Latitude 36.89166000 North - Longitude 75.48576900 West

F: Latitude 36.88375170 North - Longitude 75.48764900 West

C. SCOPE/NATURE OF THE PROJECT (dredging/marine construction, diving/surveying, shoreline restoration, bridge-related):

The Coastal Virginia Offshore Wind (CVOW) Pilot Project is being developed by Virginia Electric and Power Company, d/b/a Dominion Energy Virginia (Dominion) on behalf of the Virginia Department of Mines, Minerals, and Energy (DMME). Orsted is the EPC contractor for the construction of the windfarm.

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D. MARINE CONTRACTOR/COMPANY PERFORMING WORK:

Special Mark demarcation buoys - Cape Henry Launch Service on behalf of Orsted

Wave/demarcation buoy - Fugro on behalf of Orsted.

E. MARINE EQUIPMENT TO BE USED, THE TYPE, NAMES/NUMBERS & DIMENSIONS (barges, dredges, pipeline, support):

Special Mark demarcation buoys - Cape Henry Launch Service use the tugboat Little Brutus and attached barge no. 313 for the deployment and later recovery of the buoys.

Wave/demarcation buoy - Fugro plans to use the vessel NorthStar Challenger for the deployment and the later recovery of the wave buoy.

F. HOW MARINE EQUIPMENT WILL BE MARKED AND LIGHTED DURING REDUCED VISBILITY/DARKNESS:

Special Mark demarcation buoys - are Sealite model # SL-B1750-SM-TM1 1750mm dia. Special Mark Buoy, c/w IALA top marks. The buoys will show yellow flash period 4 seconds with a flash length 0.5 second. The lights will be visible up to 5 nautical miles.

Wave/demarcation buoy - is yellow, discus shaped with solar panels. On the buoy hull is a tower structure with instrumentation and light. The light installed on the buoy is a Sealite SL-07 with a yellow housing and yellow light. The standard is 5 quick flashes every 20 sec and it is mounted on the mast of the buoy.

G. HOW MARINE EQUIPMENT WILL BE MOORED ON SITE (anchored, spudded, moored to buoy, moored to bridge or other structure)

The Special Mark and wave/demarcation buoys will be moored with ballast weight and chain.

H. NAMES OF ATTENDING VESSELS ON SCENE (tugs/pusher boats, dive/crew boats):

Special Mark demarcation buoys - the tug Little Brutus 42'x16' feet and the 78'x16' barge CHLS 313 are planned for the deployment and recovery of the demarcation buoys. Other attending vessels are the Dimond – Patriot - Delta Escape and Delta Motion are assigned as supporting vessels for various task during the deployment of the demarcation buoys and as required during maintenance and service of the demarcation buoys.

Wave/demarcation buoy - No other vessels other than the NorthStar Challenger are planned for the deployment and recovery of the wave buoy.

I. COMMUNICATIONS TO BE USED ON SCENE, SUCH AS MARINE BAND RADIO (VHF-FM), THE FREQUENCIES MONITORED, AND CALL SIGN:

Special Mark demarcation buoys - Call sign: Little Brutus WDG582. During the deployment and recovery of the demarcation buoys Little Brutus will be monitoring VHF 16.

Wave/demarcation buoy - Call sign: NorthStar Challenger - WDG5396. NorthStar Challenger will be monitoring VHF 16.

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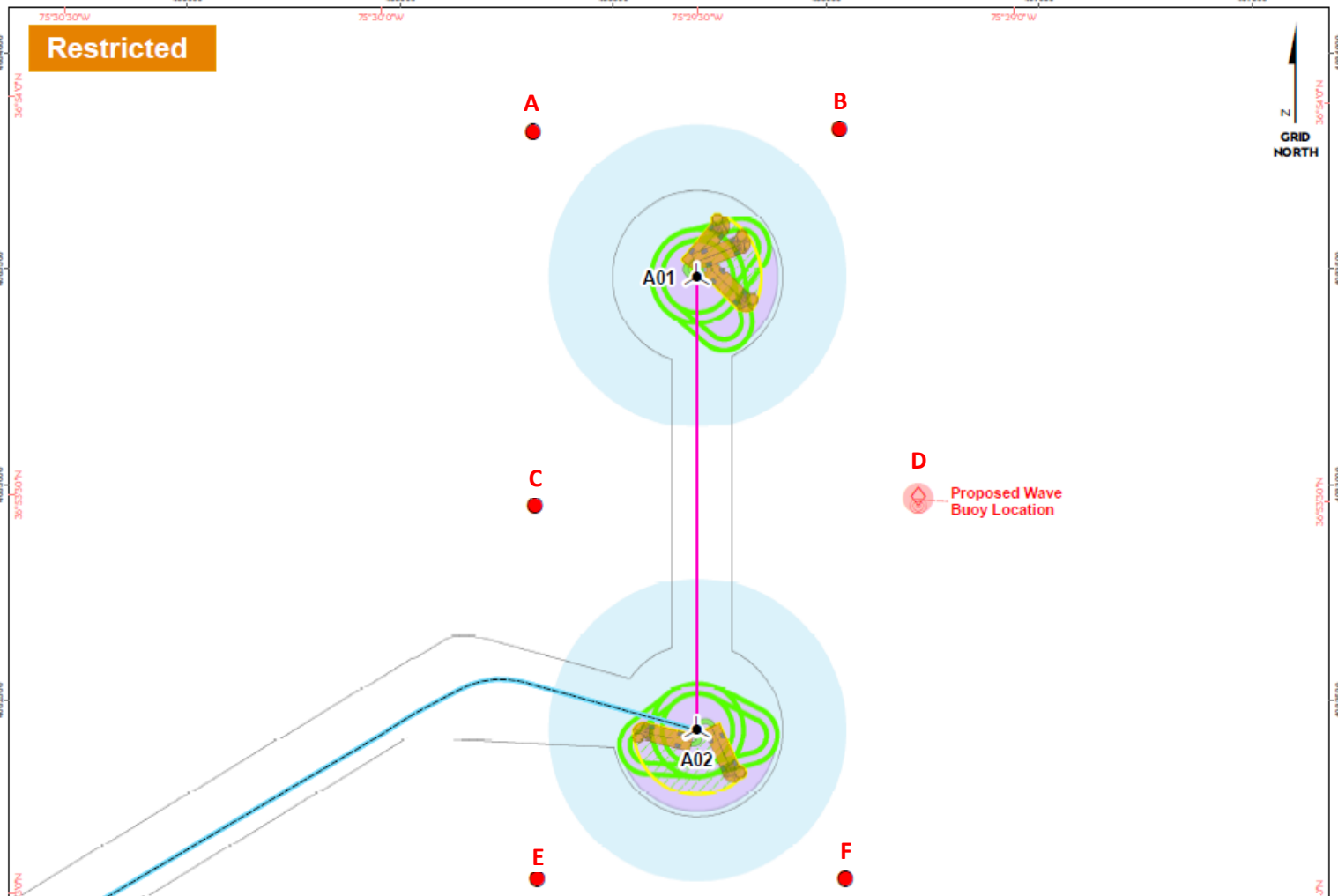
J. MARKERS/SIGNAGE EXPECTED ON SCENE, PERMITTED BY OTHER AGENCIES (buoys/pilings used for marking or warning purposes):

None

K. PROJECT SUPERVISOR NAME, TITLE AND 24-HR CONTACT NUMBER:

Capt. Peder Rosenberg Pedersen
Orsted CVOW project
Offshore Operations Manager
PEDPE@Orsted.dk
1-757-334-4578

Restricted



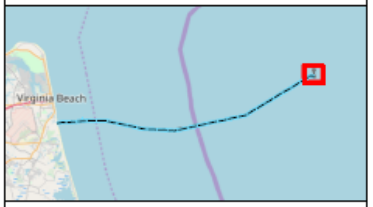
CVOW - Costal Virginia Offshore Wind Project

Proposed Demarcation Buoys

- Proposed demarcation buoys location (v1)
- Proposed Wave Buoy Location (v1)
- Turbine locations
- Array Cable Route (v5)
- Export Cable Route (v3)
- MEC Investigation Survey
- 95 Acre Circle

Vessel Jack Up Footprints (JDN,2019)

- Leg Position
- Ship Outline
- Vessel Jackup Sector
- Vessel Gangway Positioning Range
- Double Bubble Curtain Layout
- Dubble Bubble Curtain Sector



Coordinate system: WGS 1984 UTM Zone 18N
Vertical Reference: MLLW
Scale @ A3 : 1:10000

0 100 200 400 600 Meters
0 250 500 1,000 1,500 2,000 Feet

Location	ID	WGS84 UTM Zone 18N (meters)		WGS84 (Decimal Degrees)		WGS84 (Degrees Minutes Seconds)	
		Easting	Northing	Latitude	Longitude	Latitude	Longitude
Proposed Demarcation Buoy Location	A	455812.65	4083816.62	36.89930272	-75.49596563	36° 53' 57.490" N	75° 29' 45.476" W
	C	455817.06	4082952.15	36.89151042	-75.49586571	36° 53' 29.438" N	75° 29' 45.117" W
	E	455821.47	4082087.69	36.88371811	-75.49576582	36° 53' 1.385" N	75° 29' 44.757" W
	B	456531.57	4083821.03	36.89937589	-75.48789691	36° 53' 57.753" N	75° 29' 16.429" W
	F	456544.80	4082087.69	36.88375170	-75.48764900	36° 53' 1.506" N	75° 29' 15.536" W
Proposed Wave Buoy Location	D	456716.77	4082964.16	36.89166000	-75.48576900	36° 53' 29.977" N	75° 29' 8.769" W

Note : Coordinates are transformed from NAD83 2011 to WGS84 datum using 2020 time dependent transformation, for more information please contact Orsted GIS department.

REV	REMARK	DATE
---	First Issue	07/08/2019
01	Second Issue	10/08/2019
02	Third Issue	29/08/2019
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Date: 29/08/2019 Author: XAMIJ

Proposed Buoy Location
Document no:VCW01003_Rev02
Created by: XAMIJ
Checked by: JAMNE
Approved by: PEDPE

Ørsted