OCEAN WINDS

RESPONSE TO CALL FOR INFORMATION AND NOMINATIONS

RE: CALL FOR INFORMATION AND NOMINATIONS – COMMERCIAL LEASING FOR WIND POWER DEVELOPMENT ON THE CENTRAL ATLANTIC OUTER CONTINENTAL SHELF (OCS)

DOCKET NO. BOEM-2022-0023

Submitted by OW North America LLC

Contents

1. Executive Summary

OW North America LLC (herein referred as "OW NA" or "OW" interchangeably) is pleased to submit this letter of interest for commercial wind energy in response to the Bureau of Ocean Energy Management ("BOEM") Call for Information and Nominations – Commercial Leasing for Wind Power Development on the Central Atlantic Outer Continental Shelf, [Docket No. BOEM-2022-0023]. OW welcomes the opportunity to submit the Required Nomination Information for bidding in a future competitive lease sale or non-competitive lease in the Central Atlantic Call Area. This document provides the required information, including details of the nomination areas themselves, an overall description of objectives, and schedules, as well as data informing the selection.

OW has gone through BOEM qualification process for holding legal possession of offshore leases in accordance with 30 CFR585.106 and 585.107(c) and has demonstrated financial and technical qualifications to BOEM in accordance with 30 CFR 585.107(a). As part of the required indication of interest information, OW has included the qualification documents in the submission package. OW believes that these documents contain confidential information and requests to be exempted from Federal Information Act requests by third parties.

OW would like to officially declare its interest in developing offshore wind resources in the areas listed in Table 1, below. More detail can be found in Section 7. OW anticipates following BOEM's development timeline and has already initiated desktop assessments to characterize the site conditions. Through these efforts and early engagement with key stakeholders, we anticipate further refining our proposed areas of interest.

Call Area	Nomination Area	Acreage (acres)
A	A1	100,341
	A2	99,986
B	B1	99.987
	B2	100,343
	B3	99,987
	B4	99,987
C	C1	99,987
D	D1	99,987
	D2	97,140
E	E1	100,342

Table 1 – OW Nominated Areas of Commercial Interest

2. Introduction

OW would like to commend BOEM on its efforts to involve all stakeholders during the different planning stages of the offshore wind leasing process. We encourage BOEM to continue this critically important stakeholder engagement, in particular, through the Central Atlantic Intergovernmental Task Force.

OW looks forward to continuing to work together to advance the responsible development of offshore wind projects on the Central Atlantic OCS.

3. About Ocean Winds

OW is the result of a 2019 joint venture by EDP Renewables ("EDPR") and ENGIE to combine their offshore wind assets and project pipeline. Both companies shared the vision in which renewables, particularly offshore wind, play a key role in the global energy transition.

Madrid-based EDPR is a global leader in the renewable energy sector and the world's fourth-largest wind energy producer. EDPR was created in 2007 to operate the Energias de Portugal (EDP) group's renewable power business.

With sound developments in the pipeline, first class assets and a market-leading operating capacity, EDPR has experienced outstanding growth in recent years and is currently present in 16 markets (Belgium, Brazil, Canada, Colombia, France, Greece, Italy, Mexico, Poland, Portugal, Romania, Spain, Hungary, Chile, the United Kingdom, and the United States).

ENGIE is a French multinational energy and services company, with its headquarters in La Défense, Courbevoie. It focuses on the production and supply of energy, services and regeneration. It was established in 2008 by Gaz de France and Suez.

With 160,000 employees, ENGIE currently operates in almost 70 countries on five continents. While the group intends to retain its position as a key player in Europe and a leader in the energy transition process, it is now a benchmark energy provider in emerging markets.

OW acts as the exclusive investment vehicle of EDPR and ENGIE in order to capture marine wind energy opportunities around the world, both fixed bottom and floating, and is emerging as a leading offshore wind global developer and operator. OW currently has a total offshore wind portfolio of 11GW (1.5GW operating as of YE 2021) across 7 markets in Europe, North and South America and in Asia.

4. General Description of Objectives and Facilities

4.1 Objectives

OW's objective in the Central Atlantic is the installation and operation of offshore wind energy projects within the BOEM nominated call areas. Specifically, the projects will address the following objectives:

- **Deliver cost-effective renewable energy to the local grid** - By harnessing the plentiful local offshore wind resource, OW will deliver clean energy to local ratepayers at an acceptable cost.
- **Bring economic development to the region** - Offshore wind development will require investment and revitalization of local infrastructure and nearby onshore and offshore facilities. OW will maximize the use of existing facilities and collaborate with local stakeholders to identify and address local infrastructure improvements. These investments require skilled labor and will create opportunities for employment and training to communities in the immediate and surrounding area.
- **Mitigate impacts to the environment and community** – OW will leverage its global experience and local knowledge to mitigate and address environmental issues and will collaborate with maritime interest groups, tribal groups, environmental NGOs, fishery groups, and recreational ocean users to mitigate any potential impacts to the community.
- **Increase understanding and acceptance of offshore wind energy** - OW will pursue proactive community and stakeholder outreach to understand and address potential concerns.

4.2 Facilities

4.2.1 Offshore Production Facilities

4.2.1.1 Turbine

The Central Atlantic call areas offer the opportunity to consider both fixed and floating technology. OW has a decade of experience developing both fixed and floating turbine designs and will adjust its technology choice and plans based on the state of the supply chain including the availability of competitive US-based manufacturing facilities and capabilities at key moments in the future.

In line with the latest turbine technology, OW anticipates deploying offshore wind turbines of approximately 15 MW or larger as the technology evolves. **Table 2** shows the main characteristics and specifications of a typical wind turbine with a 15 MW nameplate capacity.

Rated Power	15 MW	**Tower type**	Tubular Steel
Cut-In Wind Speed	3m/s	**Hub Height (from water line)**	148 m
Cut-Out Wind Speed	30 m/s	**Blade Length**	115,5 m
Operational Rotor Speed	From ~3.0 to ~10.0 rpm	**Rotor Diameter**	236 m
Nominal Rotor Speed	~8.0 rpm	**Swept Area**	43,742 m^2

Table 2 – Indicative 15 MW Turbine Specifications

4.2.1.2 Fixed Bottom Options

Several options for wind turbine generator ("WTG") foundations are available in the market today, however, each one of them should be assessed in a project-specific basis. The most relevant foundations technology applicable for fixed offshore wind farms are the following:

- Monopile ("MP") + Transition Piece ("TP")
- Mono-bucket
- Gravity Base (made from concrete)
- 3- or 4-legged jacket (with pin-piles)
- Suction buckets for jackets
- Tripod

The most common foundation type across the offshore wind industry is the MP, whose design is governed by lateral response.

The second most used technology is the jacket substructure (3 or 4-legged), which consists of cross bracing and fabricated nodes and is attached to the soil through pin-piles. This type of foundation is more suitable for deeper water depths and more complex soil conditions.

4.2.1.3 Floating Platform Options

OW is a technology-agnostic developer that is closely monitoring the different floating technologies able to reach commercial stage. However, OW has been developing most of its offshore renewable wind floating projects using Principle Power's floating offshore wind foundation technology ("WindFloat"). WindFloat is a unique semi-submersible type, column-stabilized, offshore platform with water-entrapment plates, an asymmetric mooring system, and an offshore wind turbine located on one of the columns. The WindFloat technology has been developed specifically to achieve exceptional stability performance while reducing structural weight and simplifying logistics during installation and operation. The practically pitch and roll-free performance in the offshore environment allows the use of existing

commercial offshore wind turbines, with only minor modifications to control software. The WindFloat substructure is designed to keep wind turbine motions within the manufacture-specified design envelope, meaning that commercial offshore wind turbines can be used "off-the-shelf" with no physical modifications.

Figure 1 – OW's Windfloat Atlantic project off Portugal, in operation since 2020

The tower is made of up to four large tubular steel sections that are usually bolted together via a flange. At its lower end, the turbine tower extends into the column to maximize continuity of the structure, leading to minimized stress concentration in critical areas of the structure where bending moments are highest due to wind-induced overturning moment, and where large tubulars connect to the other stabilizing columns.

Three mooring lines are arranged in an asymmetrical fashion to provide a mooring system with low pretension requirements. The mooring system is designed to address station keeping issues (it does not need to contribute to the floater's stability) and enables simple connection-disconnection procedures that can be performed by widely available and inexpensive tug vessels. The mooring system is made of conventional components: chain, HMPE (high modulus polyethylene) or polyester rope, and heavy chain, connected to anchors. OW's design avoids interruption to marine navigation as well as wear and tear on the cable through constant abrasion of marine currents. The interacting elements of this design are collectively known as a dynamic cable system.

4.2.2 Other Facilities

4.2.2.1 Power Transmission and Grid Connection

OW assumes interconnection to the mainland grid will be via export cable(s) from an offshore substation moored at the lease area. Depending on the distance of the lease area to shore and the size of generation

assets, the export cable(s) may utilize either a high voltage alternating current ("HVAC") or high voltage direct current ("HVDC") technology to bring power onshore via longer distances as offtake opportunities and project economics allow.

[redacted]

Complete design of the offshore grid and cable infrastructure and connections, cable protection systems, and subsea connections will be completed after consideration of the results from metocean, seabed, geotechnical, and site characterization studies, operational factors, and interconnection requirements.

Complete design of the onshore transmission route and interconnection infrastructure will reflect the analysis of numerous factors like geotechnical conditions, land use patterns and infrastructure constraints, and interconnection requirements.

[redacted]

[redacted]

4.2.2.2 Backbone Transmission Development

Mid-Atlantic transmission planning has historically been dominated by a strong transmission backbone that linked coastal populations and load to thermal and nuclear power plants, in particular there is a strong legacy of generation and transmission that was sited because of the location of inland coal resources. As a result, most coastal transmission nodes – except for a select number near a few metropolitan areas and coastal power plants – have been sized to serve only local loads. Offshore wind, by contrast, requires robust, adequately sized, interconnection points to allow power from this new significant generation source to flow into regional transmission networks. To harness the full power of the offshore wind potential in the Central Atlantic, it is crucial that major onshore and offshore transmission systems are built to create a path to large load centers, not only for coastal cities, but also for inland end-users such as those in Pennsylvania and other inland states.

Some jurisdictions, such as New Jersey, have adopted a state-facilitated common export cable routing process to enable offshore wind developers to access interconnection points with sufficient transmission injection headroom. The process also seeks to explore the possibility of building a common backbone export cable system and offshore meshed grids for offshore wind developers to connect into. Such state-facilitated processes, when planned transparently and with transmission developer performance guarantees, de-risk transmission availability for offshore wind developers, ultimately reducing the cost of electricity generated from offshore wind facilities for end-users. It is notable that the Federal Energy Regulatory Commission (FERC) has initiated a rulemaking intending to foster precisely this kind of alignment between state policy goals and the planning and expansion of wholesale electrical transmission infrastructure.

[redacted] Some ideas that BOEM should consider exploring through stakeholder groups include:

- Standardization of stand-alone and common offshore wind transmission planning and permitting.

- Consenting mechanism to allow transmission developers to secure rights-of-way for offshore cable routing without possessing an offshore wind leasehold.
    - *It should be noted that the rights-of-way grant to transmission developers is proposed as an addition to, not a substitution for, the associated right-of-way easements linked to offshore wind leaseholds. This will give transmission developers a consenting mechanism to facilitate the development of a common transmission backbone, if they can provide a lower cost solution to bring power onshore, while allowing generators to keep their respective right-of-way easements as an option to go it alone.*

Drawing from the lessons of European and New Jersey offshore planning experience, OW encourages BOEM to convene a common export cable stakeholder group that should bring together BOEM officials, federal, state and local permitting jurisdictions, tribes, environmental groups, transmission/independent system operators, merchant transmission developers and offshore wind generation developers. A non-exhaustive list of items that could be discussed among the stakeholders are:

- Mechanisms for reducing project-on-project risk for offshore wind transmission and generation developers.
- Regulatory guardrails for common export cable routing plans, perhaps starting from FERC Order 1000 principles.
- Separate Construction and Operation Plan ("COP") filing processes for offshore wind generation and transmission projects. This would allow COP submissions for offshore wind generation activities to exclude export cable routing and point of interconnection details in cases where a separate COP is in place for transmission activities.
- Potential for BOEM facilitated auctions for the transmission developer community to bid on and secure rights-of-way to develop a common transmission backbone for offshore wind. Additionally, a process to grant easements to transmission developers that are similar to the standard right of way easements currently granted to offshore wind leaseholds.

4.2.2.3 Other Energy Transmission Media Under Consideration

[redacted]

OW would welcome a BOEM initiated stakeholder group to discuss the possibility of a common hydrogen pipeline development that can bring renewable energy to shore. This would allow for the growth of the US renewable hydrogen industry, as well as reduce the footprint on the ocean floor for offshore wind export systems.

5. General Schedule of Proposed Activities

OW will adopt a project schedule that can be divided into development, pre-construction, construction, and operation phases, incorporating the BOEM leasing and permitting timelines. [redacted]

5.1 Development

The development phase consists of pre-lease activities, pre-survey activities, site assessment, and ends when the construction and operation plan ("COP") has been approved. [redacted]

Pre-lease activities consist of early site characterization studies and participation in non-competitive and competitive BOEM lease solicitations to secure an offshore wind leasehold. [redacted]

Once an offshore wind leasehold has been secured, pre-survey activities begin with de-risking activities and end in the approval of a Site Assessment Plan ("SAP"). [redacted]

With appropriate survey permit approvals, the project will commence site assessment. [redacted]

5.2 Pre-construction

The pre-construction phase commences once COP approval has been granted. [redacted]

5.3 Construction

After a successful Financial Close and the applicable permits have been secured, the construction phase begins. T[redacted]

5.4 Operation, Decommissioning

Once COD has been reached, the project will be in the operations phase [redacted]

6. Renewable Energy Resource and Environmental Conditions

6.1 Energy Resource

The offshore wind resources of the United States were first estimated by the Department of Energy ("DOE") National Renewable Energy Laboratory ("NREL") in 2003. Offshore wind mapping has been updated since then, most recently in 2016. A wind speed map for the Central Atlantic is publicly available at an adjusted reference height of 100 meters above the water.

[redacted]

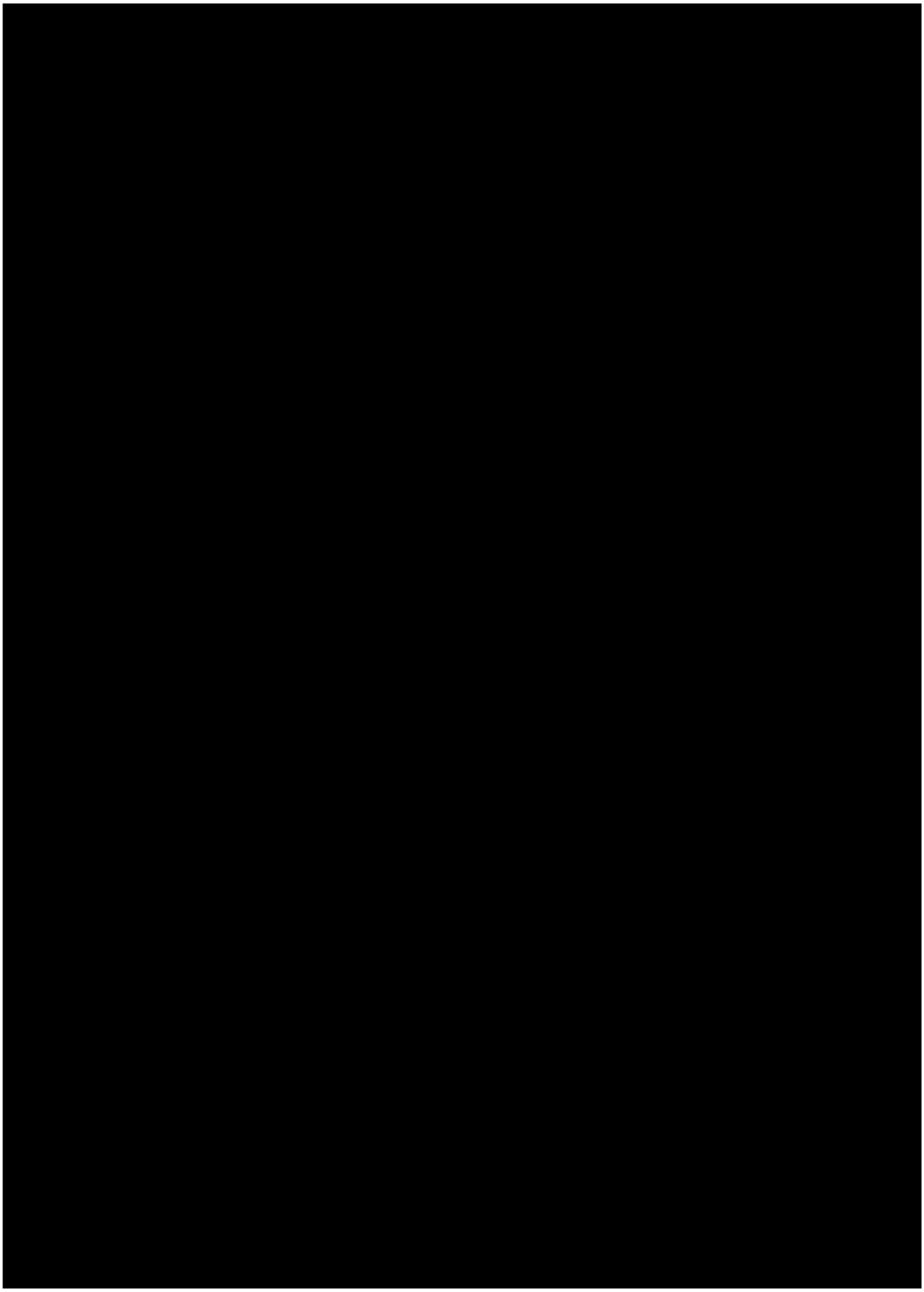

Figure 2 – [redacted]

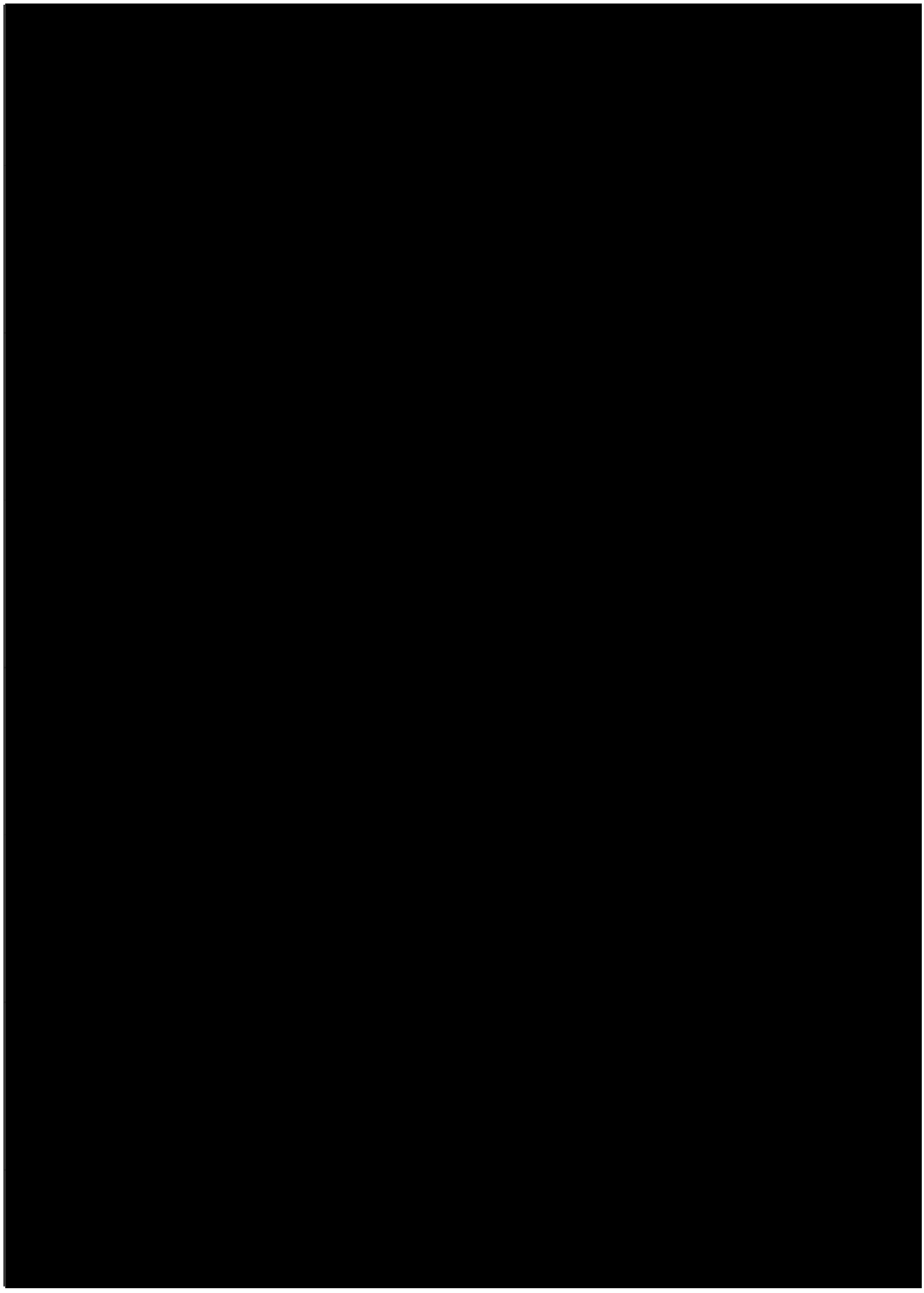

Figure 3 – [redacted]

6.2 Environmental Conditions

6.2.1 Geological Conditions

The Central Atlantic Call Areas involve water depths ranging from 30m in shallow Call Areas (A, B, C, and D) to 2600m in the deeper Call Areas (E and F), [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

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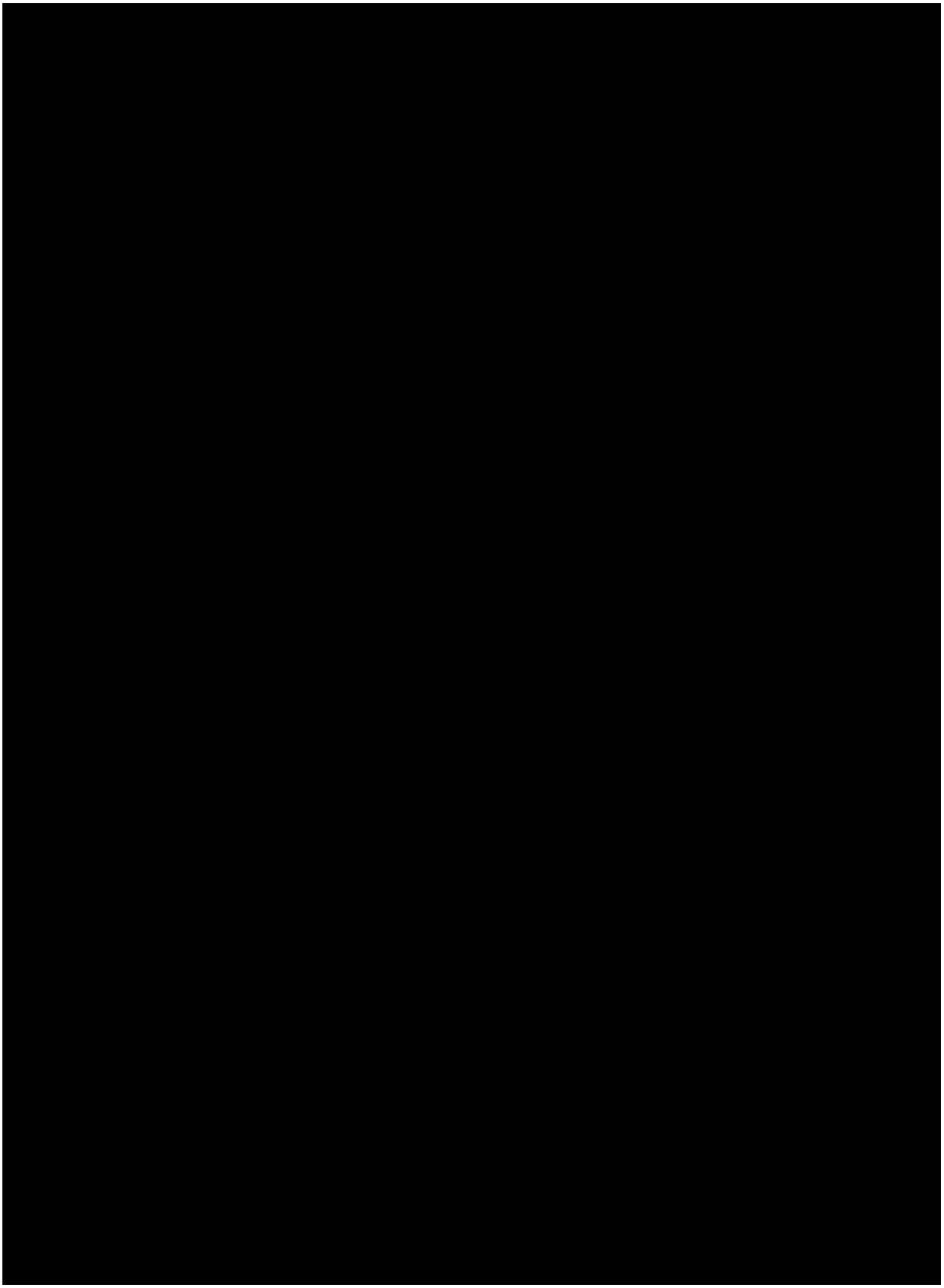

Figure 4 – [redacted]

6.2.2 Biological Conditions

The Central Atlantic is home to a diverse marine wildlife population that must be respected. OW has deep experience in responsible energy development, and through its sponsors, EDPR and Engie, has an even longer history supporting organizations whose mission it is to promote scientific research related to wind and wildlife interactions. This research enables a better understanding of the wind industry's impact on wildlife and strategies to avoid, minimize, and mitigate those impacts.

A preliminary desktop study was conducted by OW, utilizing data from public sources, to identify possible interactions with marine wildlife within the Central Atlantic Call Areas.

Table 3 details results of the preliminary desktop study, highlighting potential biological areas of importance.

[redacted]

Table 3 – [redacted]

[redacted]

OW welcomes the input of regulators and stakeholders to ensure that concerns regarding impacts on marine wildlife are raised. Additionally, OW will conduct more detailed assessments to understand any impacts to marine wildlife and identify the appropriate strategies that should be adopted to ensure coexistence.

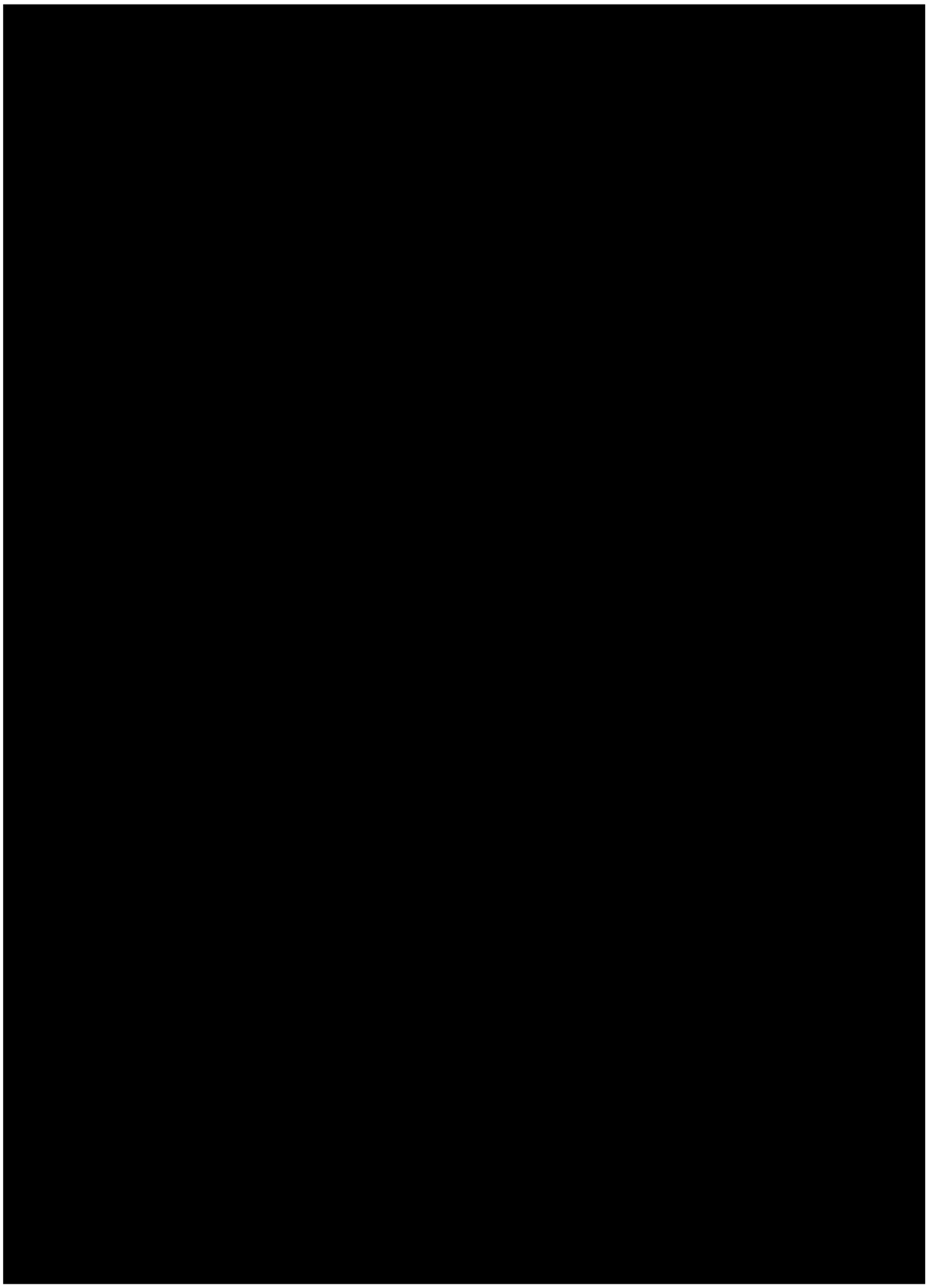

Figure 5 – [redacted]

6.2.3 Societal Concerns

The Central Atlantic region supports an ecosystem of multi-use areas that allow a wide range of ocean users, from commercial fishing boats to navy aircraft carriers, to coexist without creating conflicts between one another. OW has extensive experience through its sponsors, EDPR and Engie, in developing and operating renewable energy projects in complex permitting environments through building strong relationships with regulators and local stakeholders with meaningful engagement.

A preliminary desktop study was conducted by OW, utilizing data from public sources, to identify potential conflicts with ocean users within the Central Atlantic Call Areas.

6.2.3.1 Shipping and Navigation

OW acknowledges the ongoing efforts of the US Coast Guard (USCG) to identify and establish shipping safety fairways along the Atlantic Coast of the United States as part of the Atlantic Coast Port Access Route Study (ACPARS).

[redacted]

OW appreciates the work that BOEM has already carried out with the USCG in the drafting of the proposed Call Areas to ensure vessel navigational safety. However, OW would urge BOEM to continue its important work with USCG and other relevant stakeholders to continue to assess proposed ACPARS fairways to ensure that any propose lease areas remain adequately sized for commercial feasibility.

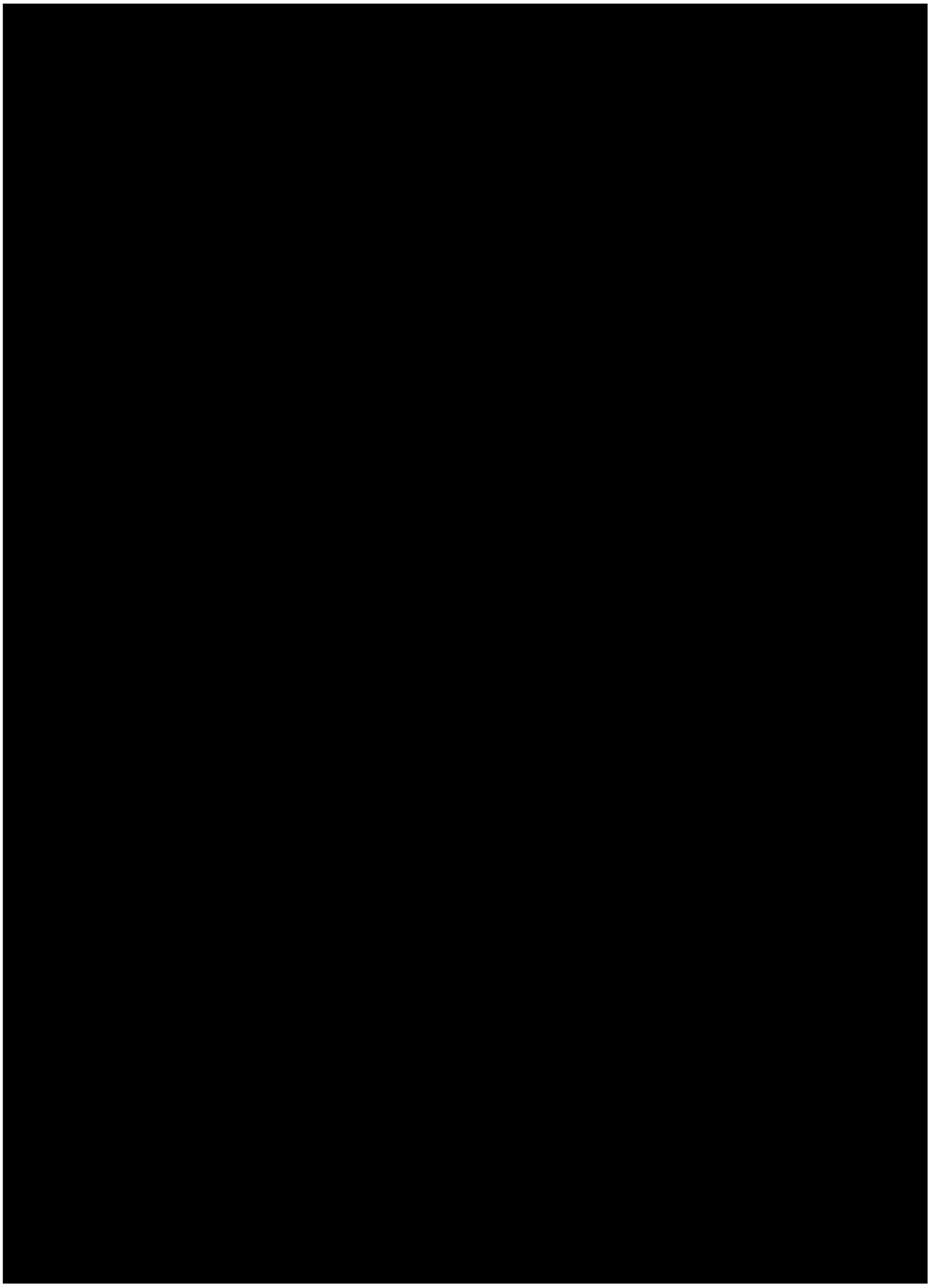

Figure 6 – [redacted]

6.2.3.2 Seascape and Visual

Seascape and visual impacts of offshore wind farms are a common concern among stakeholders who live in proximity to offshore wind development.

[redacted]

BOEM, and project proponents has conducted several visualization studies for projects and Call Areas on the Atlantic Coast. The most recent viewshed analysis was for the New York Outer Continental Shelf Call. The report found that minimal impact is achieved at 20 miles from shore, and negligible impact at 25 miles when an 8MW (Siemens SWT 8.0 154m diameter) is deployed. This information should not be directly extracted to determine the precise impact to the viewshed off the Central Atlantic Call Areas due to potential differences in: meteorological conditions, elevation near the coast, technology deployed.

[redacted]

6.2.3.3 Fisheries

OW believes that the success of the offshore wind industry in the Central Atlantic is dependent on developers' ability to coexist alongside fishermen through early, transparent, and continuous collaboration.

[redacted]

OW commends BOEM for its history of collaboration with the fishing industry in the North Atlantic and now its engagement with fishing stakeholders in the Central Atlantic. [redacted]

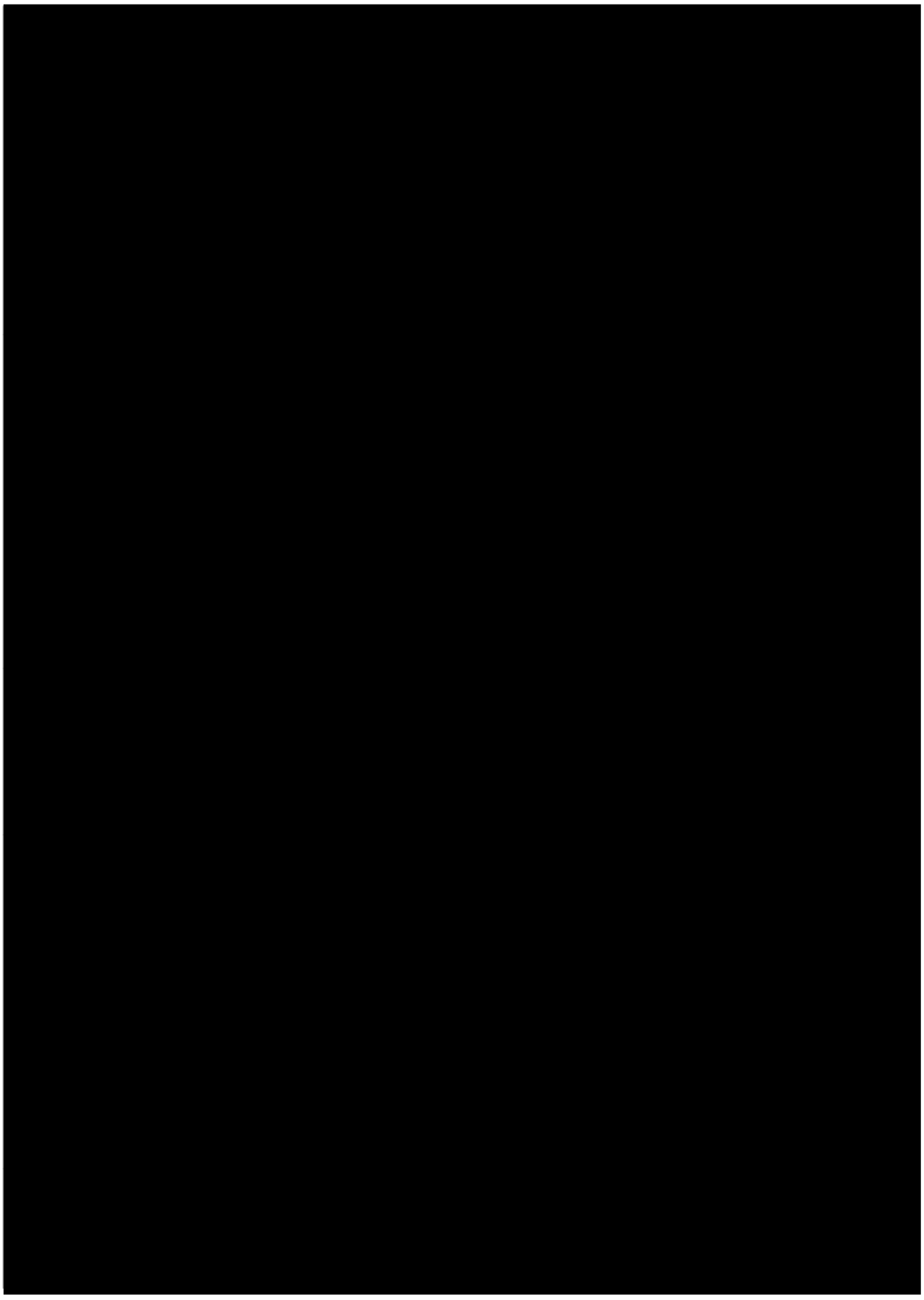

Figure 7 – [redacted]

6.2.3.4 Military Activities

The U.S. Department of Defense (DOD) conducts training, testing and operations in the airspace, sea surface, subsurface and seafloor of the Central Atlantic.

[redacted]

OW commends BOEM for initiating these assessments as part of the renewable energy task force process.

[redacted]

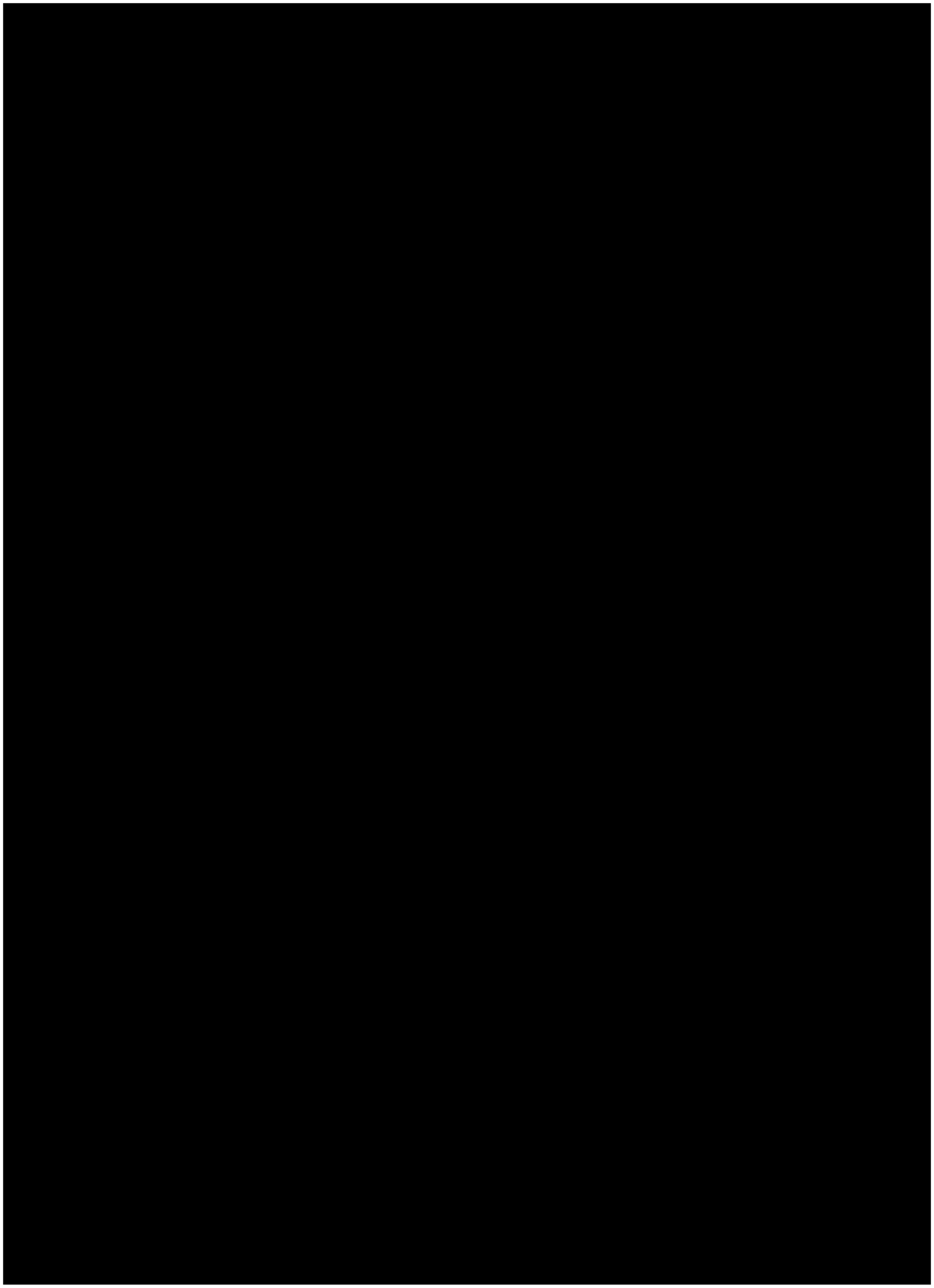

Figure 8 – [redacted]

7. Nominations for a Commercial Wind Energy Lease

OW believes that the Central Atlantic will be an important area for offshore wind development. [redacted]

OW would like to officially declare its interest in developing offshore wind resources in the areas listed in Tables 4 to 8, which can be found in the Appendix. Additionally, a spatial file compatible with ArcGIS 10.8.1 has been included in the submission packet. OW anticipates following BOEM's development timeline and has already initiated desktop assessments to characterize the site conditions. Through these efforts and early engagement with key stakeholders, we anticipate further refining our proposed areas of interest.

Figure 9 is a visual representation of OW's areas of interest for floating and fixed bottom development. OW has also included an electronic format for the areas of interest enclosed in this submission as requested by BOEM. [redacted]

1. [redacted]

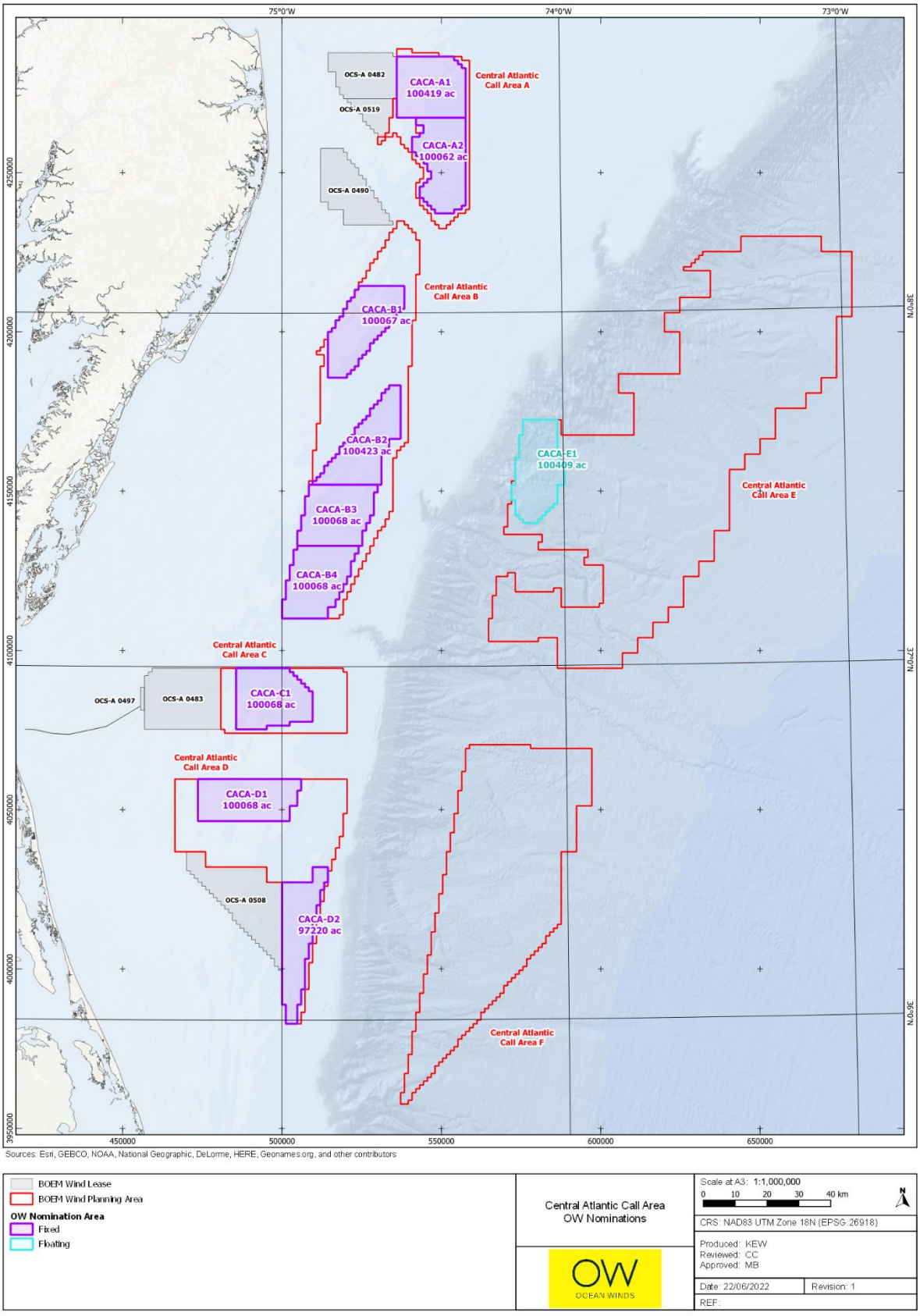

Figure 9 – OW's areas of interest for fixed-bottom and floating offshore wind development

8. References

[1] "Marine Cadastre National Viewer," [Online]. https://marinecadastre.gov/nationalviewer/

[2] "Renewable Energy Viewshed Analysis and Visualization for the New York Outer Continental Shelf Area: Compedium Report," Bureau of Ocean Energy Management , 2015. [Online]. Available: https://www.boem.gov/Compendium-Report-Final/.

[3] Office for Coastal Management, 2022: DoD Offshore Wind Mission Compatibility Assessments, https://www.fisheries.noaa.gov/inport/item/48875

[4] Shipping Safety Fairways Along the Atlantic Coast. Coast Guard, DHS. Docket No. USCG-2019-0279

[5] Conservation status of the American horseshoe crab, (Limulus polyphemus): a regional assessment. David R. Smith et al. Reviews in Fish Biology and Fisheries. 2017

[6] National Oceanic and Atmospheric Administration. https://www.noaa.gov/

[7] Ocean Winds corporate website. https://www.oceanwinds.com/

[8] EDPR corporate website. https://www.edpr.com/

[9] ENGIE corporate website. https://www.engie.com/

Appendices

Appendix A – Central Atlantic OW Areas of Interest

Proposed Nomination Areas

Call Area A

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A1	NJ18-05	6328			X	X			X	X			X	X			X	X
A1	NJ18-05	6329	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6330	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6331	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6332	X				X	X			X	X	X		X	X	X	X
A1	NJ18-05	6378			X	X			X	X			X	X			X	X
A1	NJ18-05	6379	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6380	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6381	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6382	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6428			X	X			X	X			X	X			X	X
A1	NJ18-05	6429	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6430	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6431	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6432	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6478			X	X			X	X			X	X			X	X
A1	NJ18-05	6479	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6480	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6481	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A1	NJ18-05	6482	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6529				X				X								
A2	NJ18-05	6530	X	X	X	X	X	X	X	X		X	X	X		X	X	X
A2	NJ18-05	6531	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6532	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6579							X	X			X	X			X	X
A2	NJ18-05	6580	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6581	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6582	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6629			X	X				X								
A2	NJ18-05	6630	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
A2	NJ18-05	6631	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6632	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6680			X	X			X	X				X				X
A2	NJ18-05	6681	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks														
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A2	NJ18-05	6682	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6730			X	X		X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6731	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6732	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6780	X	X	X	X		X	X	X			X	X				X
A2	NJ18-05	6781	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A2	NJ18-05	6782	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
A2	NJ18-05	6831	X	X	X	X												

Table 4 – OW Areas of Interest Central Atlantic – Call Area A

Call Area B

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks														
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
B1	NJ18-05	7075								X				X			X	X
B1	NJ18-05	7076	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-05	7077	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-05	7078	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-05	7125		X	X	X		X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-05	7126	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-05	7127	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-05	7128	X	X	X	X	X	X	X	X	X	X	X		X	X		
B1	NJ18-08	6024				X			X	X			X	X		X	X	X
B1	NJ18-08	6025	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-08	6026	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-08	6027	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
B1	NJ18-08	6028	X															
B1	NJ18-08	6074	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-08	6075	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-08	6076	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
B1	NJ18-08	6077	X	X			X											
B1	NJ18-08	6124	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-08	6125	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-08	6126	X	X	X		X	X			X							
B1	NJ18-08	6174	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B1	NJ18-08	6175	X	X	X	X	X	X	X		X	X			X			
B2	NJ18-08	6227																X
B2	NJ18-08	6228									X	X	X		X	X	X	
B2	NJ18-08	6277			X	X			X	X		X	X	X	X	X	X	X
B2	NJ18-08	6278	X	X	X		X	X	X		X	X	X		X	X	X	

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
B2	NJ18-08	6326				X				X			X	X		X	X	X
B2	NJ18-08	6327	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6328	X	X	X		X	X	X		X	X	X		X	X	X	
B2	NJ18-08	6375								X				X			X	X
B2	NJ18-08	6376	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6377	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6378	X	X	X		X	X	X		X	X	X		X	X	X	
B2	NJ18-08	6424												X				X
B2	NJ18-08	6425		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6426	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6427	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6473																X
B2	NJ18-08	6474			X	X		X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6475	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6476	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6477	X	X			X	X			X	X			X	X		
B2	NJ18-08	6523				X			X	X		X	X	X	X	X	X	X
B2	NJ18-08	6524	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6525	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6526	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B2	NJ18-08	6527	X	X			X	X			X	X			X	X		
B3	NJ18-08	6572				X				X				X			X	X
B3	NJ18-08	6573	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6574	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6575	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6576	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6577	X				X											
B3	NJ18-08	6622			X	X			X	X			X	X			X	X
B3	NJ18-08	6623	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6624	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6625	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6626	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6672		X	X	X		X	X	X		X	X	X		X	X	X
B3	NJ18-08	6673	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6674	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6675	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6676	X	X	X		X	X	X		X	X			X	X		
B3	NJ18-08	6722	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6723	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6724	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B3	NJ18-08	6725	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks														
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
B3	NJ18-08	6726	X				X				X				X			
B4	NJ18-08	6771								X				X				X
B4	NJ18-08	6772	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6773	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6774	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6775	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
B4	NJ18-08	6821				X			X	X			X	X			X	X
B4	NJ18-08	6822	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6823	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6824	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6825	X	X			X	X			X	X			X	X		
B4	NJ18-08	6871			X	X		X	X	X		X	X	X		X	X	X
B4	NJ18-08	6872	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6873	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6874	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6875	X				X											
B4	NJ18-08	6921		X	X	X		X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6922	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6923	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B4	NJ18-08	6924	X	X	X		X	X	X		X	X			X	X		
B4	NJ18-08	6971	X	X	X	X	X	X	X	X	X	X	X	X				
B4	NJ18-08	6972	X	X	X	X	X	X	X	X	X	X	X	X				
B4	NJ18-08	6973	X	X	X	X	X	X	X	X	X	X	X	X				

Table 5 – OW Areas of Interest Central Atlantic – Call Area B

Call Area C

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
C1	NJ18-11	6018	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6019	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6020	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6021	X	X			X	X	X		X	X	X	X	X	X	X	X
C1	NJ18-11	6022													X			
C1	NJ18-11	6068	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6069	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6070	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6071	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
C1	NJ18-11	6072	X	X			X	X	X		X	X	X	X	X	X	X	X
C1	NJ18-11	6118	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6119	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6121	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6122	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6168	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6169	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C1	NJ18-11	6170	X	X	X	X	X	X	X	X	X	X	X	X				
C1	NJ18-11	6171	X	X	X	X	X	X	X	X	X	X						
C1	NJ18-11	6172	X	X	X	X	X	X	X	X								

Table 6 – OW Areas of Interest Central Atlantic – Call Area C

Call Area D

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
D1	NJ18-11	6365							X	X			X	X			X	X
D1	NJ18-11	6366					X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6367					X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6368					X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6369					X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6370					X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6371					X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6372					X				X				X			
D1	NJ18-11	6415			X	X			X	X			X	X			X	X
D1	NJ18-11	6416	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6417	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6418	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6419	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6420	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6421	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6465			X	X		X	X		X	X		X	X		X	X
D1	NJ18-11	6466	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6467	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6468	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6469	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6470	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D1	NJ18-11	6471	X	X			X	X			X	X			X	X		
D2	NJ18-11	6673	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
D2	NJ18-11	6721	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6722	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6723	X	X	X		X	X	X		X	X			X	X		
D2	NJ18-11	6771	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6772	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6773	X	X			X	X			X				X			
D2	NJ18-11	6821	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6822	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6823	X				X											
D2	NJ18-11	6871	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6872	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6921	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6922	X	X	X		X	X	X		X	X	X		X	X	X	
D2	NJ18-11	6971	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	6972	X	X			X	X			X	X			X	X		
D2	NJ18-11	7021	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	7022	X	X			X	X			X	X			X	X		
D2	NJ18-11	7071	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D2	NJ18-11	7072	X				X				X				X			
D2	NJ18-11	7121		X	X	X		X	X	X		X	X	X		X	X	X
D2	NJ18-11	7171		X	X	X												

Table 7 – OW Areas of Interest Central Atlantic – Call Area D

Call Area E

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
E1	NJ18-08	6336																X
E1	NJ18-08	6337													X	X	X	X
E1	NJ18-08	6338													X	X	X	X
E1	NJ18-08	6386				X				X				X				X
E1	NJ18-08	6387	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6388	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6436			X	X			X	X			X	X			X	X
E1	NJ18-08	6437	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6438	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6486			X	X		X	X	X		X	X	X		X	X	X
E1	NJ18-08	6487	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6488	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6489					X				X	X			X	X		

OW Nomination Area	Protraction Number	Block Number	Sub-Blocks														
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
E1	NJ18-08	6536		X	X	X		X	X	X		X	X	X		X	X	X
E1	NJ18-08	6537	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6538	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6539	X	X			X	X			X	X			X	X		
E1	NJ18-08	6586	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6587	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6588	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6636		X	X	X		X	X	X		X	X	X		X	X	X
E1	NJ18-08	6637	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E1	NJ18-08	6638	X	X	X	X	X	X	X		X	X			X			
E1	NJ18-08	6686			X	X				X								
E1	NJ18-08	6687	X	X	X	X	X	X	X									

Table 8 – OW Areas of Interest Central Atlantic – Call Area E