

MAINTAINS | REALITY



Qualification Criteria to Acquire and Hold Renewable Energy Leases and Grants and Alternate Use Grants on the U.S. Outer Continental Shelf.



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MAINSTREAM | REACTIVE

1. Introduction

Mainstream Renewable Power (“Mainstream”) is very pleased to provide a response to the Bureau of Ocean Energy Management’s (“BOEM”) Call for Information and Nominations for commercial leasing for wind energy development offshore the U.S. Central Atlantic coast.

Mainstream applauds the efforts made by BOEM as well as the Commonwealth of Virginia, and the States of Delaware, Maryland and North Carolina, to establish an offshore wind market off the Central Atlantic Coast of the United States and very much welcome the opportunity to be part of this growth.

In accordance with the Required Qualification Information, Mainstream has included the following information:

- Documentation demonstrating that Mainstream is technically qualified to hold a lease
- Documentation demonstrating that Mainstream is financially qualified to hold a lease

Please note that Mainstream is legally qualified to hold a lease in the Outer Continental Shelf and has registered with BOEM under Company Number 15089.

1.1. Background on Mainstream

Mainstream Renewable Power is a leading pure-play renewable energy company, with wind and solar assets across global markets, including in Latin America, Africa, and Asia-Pacific. Mainstream is one of the most successful developers of gigawatt-scale renewables platforms, across onshore wind, offshore wind, and solar power generation. It has successfully delivered 6.5 GW of wind and solar generation assets to financial close-ready.

In May 2021, Aker Horizons acquired a 75% equity stake in the company, accelerating its plans to deliver its high-quality pipeline of over 16 gigawatts of renewable energy. In March 2022, Mitsui & Co., Ltd., joined Aker Horizon’s as a long-term strategic investor, agreeing to invest EUR 575 million in Mainstream as well as taking a long-term active role in the growth of the Company.

Our mission is to work in collaboration with strategic partners and local communities to accelerate progress towards a sustainable future and a low carbon economy. Through our innovative approach to development, Mainstream has forged a reputation as a company that goes beyond the traditional role of project developer.

Mainstream is a world leader in the development of large-scale offshore wind projects. In Europe, the company has developed and consented the Hornsea One project and developed Hornsea Two totalling 2.6 GW in England. Mainstream also consented the 450 MW Neart na Gaoithe (“NnG”) offshore wind project in Scotland. These projects represent approximately 20% of the UK’s offshore wind capacity either in operation or under construction.

Mainstream also has a strong onshore track record. We are the market leader in Chile with a development pipeline of over 3 GW and 1.4 GW of wind and solar projects under construction. In South Africa we have been awarded 2.1 GW through the renewable energy independent power producer programme and have delivered 842 MW of wind and solar projects into commercial operation. In Vietnam, Mainstream, together with the Phu Cuong Group, is currently developing the 1.4 GW Phu Cuong Soc Trang offshore wind farm, which is set to be one of the largest offshore wind farms in Southeast Asia.

OUR VISION

Is of a world electrified by renewable energy.

OUR MISSION

is to lead the global transition to renewable energy by delivering economically efficient, utility scale, renewable energy for customers globally.

OUR VALUES

We share a common set of values across the globe and chief among them is our commitment to safety. It's the value we put first in our day-to-day work.



Figure 1: Mainstream's values

2. Technical Capabilities}

(Redacted)

Mainstream’s track record, described in detail below, shows that it is technically capable to develop, construct, operate and maintain an offshore windfarm, Figure 2 provides a brief visual summary.

This section is divided in two parts, the first highlights Mainstream’s key personnel who will directly be involved in the offshore windfarm and the second shows current and prior projects.



Figure 2: A snapshot of Mainstream's track record and capabilities

2.1. Key Personnel

(Redacted)

2.2. Prior and current projects

(Redacted)

Mainstream has vast development experience in both onshore and offshore wind development. The Mainstream offshore track record includes three projects with a combined capacity of over 4.7 GW, these projects are discussed in more detail below.

2.2.1. England – 3,000 MW Hornsea

In 2009 Mainstream entered a 50/50 joint venture with Siemens Project Ventures to form SMart Wind. SMart successfully bid for and then developed the 3,000 MW Hornsea Offshore Wind Zone in the UK North Sea as part of The Crown Estate’s licensing round for large-scale offshore wind projects (Round 3).

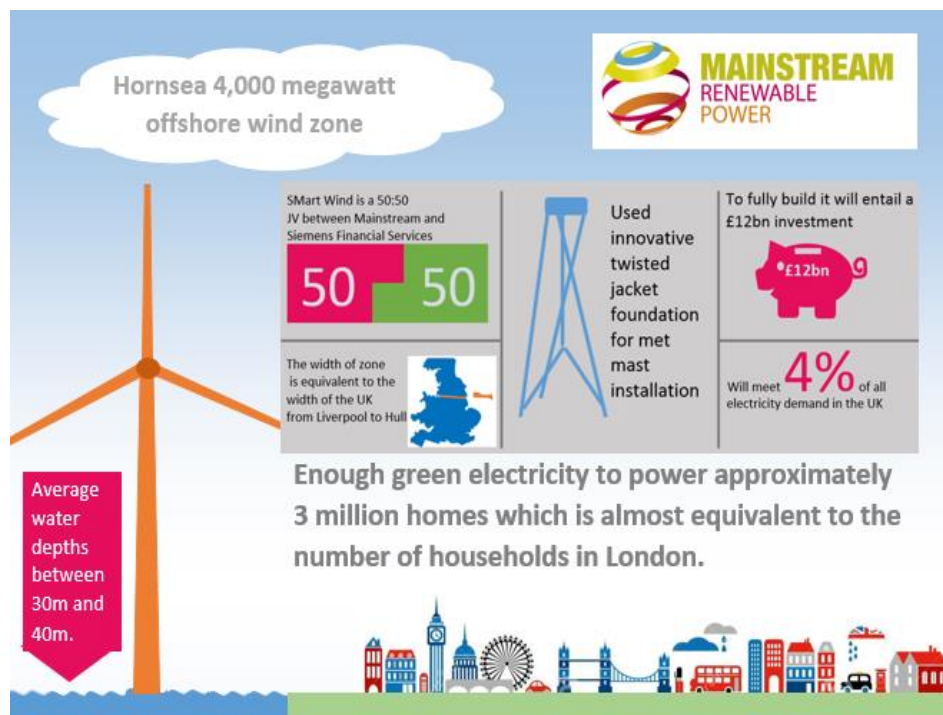


Figure 3: Hornsea offshore windfarm quick facts

2.2.2. Scotland – 450 MW Nært na Gaoithe

The NnG offshore wind farm is located some 15.5 km off the Fife coast and covers an area of approximately 105 km². Mainstream won the exclusive right to develop the NnG (Gaelic for ‘Strength of the Wind’) project as part of a competitive bidding process run by The Crown Estate in February 2009.

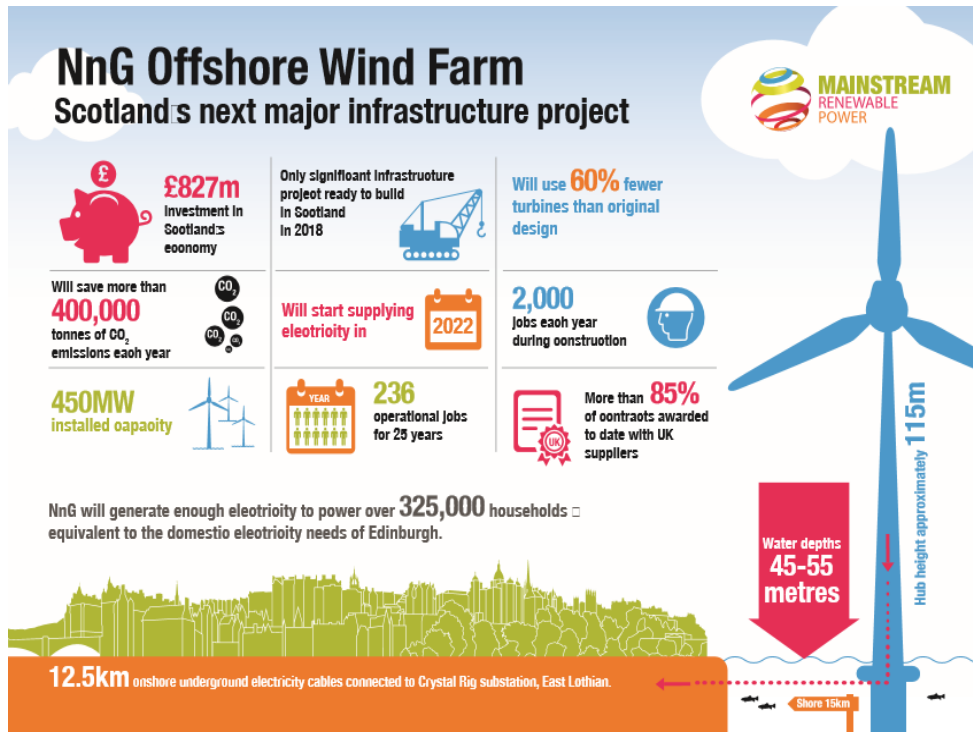


Figure 4: NnG offshore windfarm quick facts

2.3. Legal action

Mainstream has not had any adverse legal or regulatory action taken against it in the last 5 years.

3. Financial Capabilities

(Redacted)

3.1. Years in operation

Mainstream was founded in 2008 and the multi-disciplinary team has over 1,100 years of industry experience. Mainstream's in-house teams take projects through all stages of development, financing, construction, and operations.

Our in-house capabilities include:

Safety and health	Energy analysis	Corporate finance
Corporate affairs	Project management	Operations & maintenance
Power plant optimisation	Civil engineering	Procurement & contracts
Power sales	Construction management	Planning & consents
GIS mapping	Power transmission	Environmental management

3.2. Company profile

Vision and mission

Mainstream’s mission is to lead the global transition to renewable energy. While it is no small ambition, our vision of a world without fossil fuels is already evolving and transforming the way we live. Our part to play in that transition is to deliver cost effective utility scale renewable energy to customers and governments through our set of cohesive company values. These values are the cornerstone of everything we do:

Integrity. Safety. Innovation. Sustainability. Teamwork. Entrepreneurial approach. Respect.

Our values provide a clear foundation for the Mainstream Global Development Standard, and every aspect of delivery from development through construction and operation. Our global policies on Health and Safety, Quality and Environment are deeply embedded across our business. Teamwork, Innovation, and an Entrepreneurial Approach are key to effective problem solving. Respect and Integrity are at the very core of our development approach and are the basis for the comprehensive global Community Charter for interaction with the communities neighboring our projects throughout the lifetime of our projects.

4. Proposed Nomination Areas

Following an extensive analysis of the six call areas set out in the Call for Information and Nominations, Mainstream is expressing interest in four call areas. Lists of protraction numbers, block numbers and sub block numbers are listed in Section 5 below. For an overview of these areas, please refer to [Table 6](#).

Table 6 Summary of Nominations

BOEM Call Area	Nominated Area (Acres)
Call Area A	179,338
Call Area B	278,967
Call Area C	193,217
Call Area D	185,032

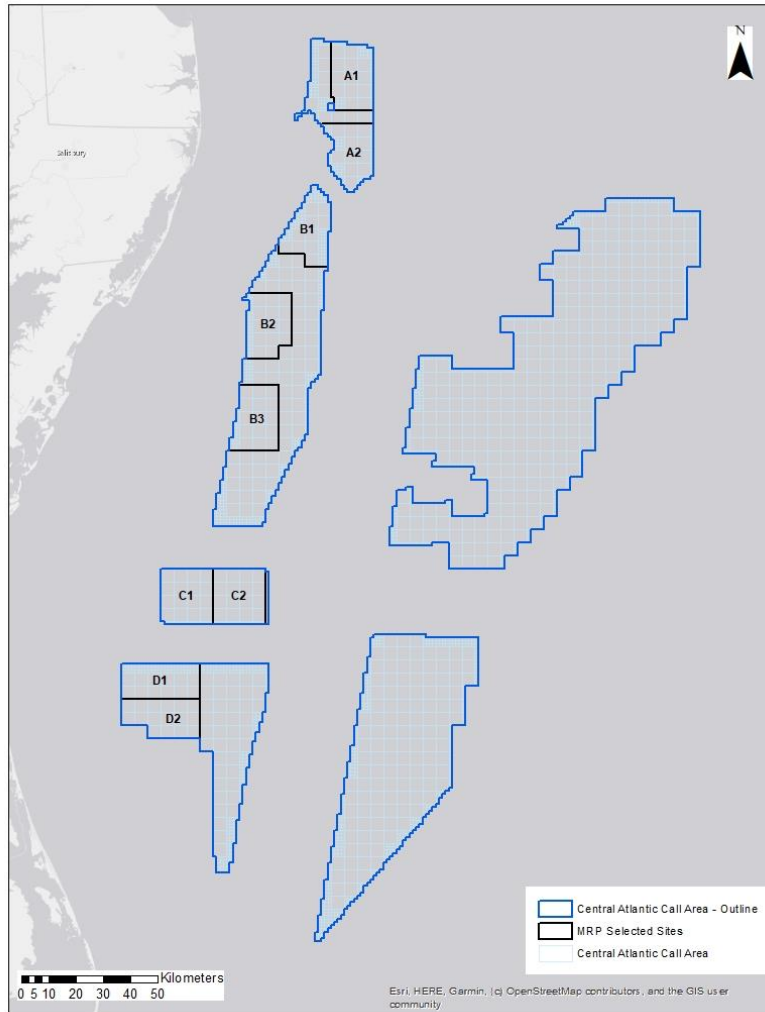


Figure 8: Mainstream Nominated Areas

5. Nominations

5.1. Nominations in Call Area A

5.1.1. Nomination Description

The nominated areas are approximately 179,338 acres in total. Based on our site characterization analysis, Mainstream nominates the two areas as represented in Table 7.

Table 7: Identification of Extensions OCS Lease Blocks of Interest – Area A

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
A1	Central Atlantic Call Area A	NJ18-05	6330	
	Central Atlantic Call Area A	NJ18-05	6380	
	Central Atlantic Call Area A	NJ18-05	6381	
	Central Atlantic Call Area A	NJ18-05	6382	
	Central Atlantic Call Area A	NJ18-05	6430	
	Central Atlantic Call Area A	NJ18-05	6431	
	Central Atlantic Call Area A	NJ18-05	6432	
	Central Atlantic Call Area A	NJ18-05	6480	
	Central Atlantic Call Area A	NJ18-05	6481	
	Central Atlantic Call Area A	NJ18-05	6482	
	Central Atlantic Call Area A	NJ18-05	6531	
	Central Atlantic Call Area A	NJ18-05	6532	
	Central Atlantic Call Area A	NJ18-05	6531	
	Central Atlantic Call Area A	NJ18-05	6280	m-p
	Central Atlantic Call Area A	NJ18-05	6281	m
	Central Atlantic Call Area A	NJ18-05	6332	a-c, e-p
	Central Atlantic Call Area A	NJ18-05	6333	e, i, m
	Central Atlantic Call Area A	NJ18-05	6383	a, e, i, m
	Central Atlantic Call Area A	NJ18-05	6433	m
	Central Atlantic Call Area A	NJ18-05	6483	a, e, i, m
	Central Atlantic Call Area A	NJ18-05	6530	b-d, e-h, j-l, n-p
	Central Atlantic Call Area A	NJ18-05	6533	a, e, i, m

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
A2	Central Atlantic Call Area A	NJ18-05	6629	b-d, g-h, k-l, p
	Central Atlantic Call Area A	NJ18-05	6633	a, e, i, m
	Central Atlantic Call Area A	NJ18-05	6680	a-d, f-h, j-l, n-p
	Central Atlantic Call Area A	NJ18-05	6683	a, e, i, m
	Central Atlantic Call Area A	NJ18-05	6729	h, l, p
	Central Atlantic Call Area A	NJ18-05	6733	a, e, i, m
	Central Atlantic Call Area A	NJ18-05	6779	d
	Central Atlantic Call Area A	NJ18-05	6780	a-l, n-p
	Central Atlantic Call Area A	NJ18-05	6783	a, e, i, m
	Central Atlantic Call Area A	NJ18-05	6830	c-d, h, l
	Central Atlantic Call Area A	NJ18-05	6832	a-f, i
	Central Atlantic Call Area A	NJ18-05	6881	b-c
	Central Atlantic Call Area A	NJ18-05	6631	
	Central Atlantic Call Area A	NJ18-05	6632	
	Central Atlantic Call Area A	NJ18-05	6681	

	Central Atlantic Call Area A	NJ18-05	6682	
	Central Atlantic Call Area A	NJ18-05	6731	
	Central Atlantic Call Area A	NJ18-05	6732	
	Central Atlantic Call Area A	NJ18-05	6781	
	Central Atlantic Call Area A	NJ18-05	6630	
	Central Atlantic Call Area A	NJ18-05	6730	
	Central Atlantic Call Area A	NJ18-05	6782	
	Central Atlantic Call Area A	NJ18-05	6831	

5.2. Nomination in Call Area B

5.2.1. Nomination Description

The nominated areas area approximately 178,967 acres in total. Based on our site characterization analysis, Mainstream nominates the three areas as represented in Table 8.

Table 8: Identification of Extensions OCS Lease Blocks of Interest – Area B

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
B1	Central Atlantic Call Area B	NJ18-05	6828	o-p
	Central Atlantic Call Area B	NJ18-05	6878	c-d, f-p
	Central Atlantic Call Area B	NJ18-05	6879	a, e-f, i-k, m-o
	Central Atlantic Call Area B	NJ18-05	6927	d, h, k-l, n-p
	Central Atlantic Call Area B	NJ18-05	6976	l, p
	Central Atlantic Call Area B	NJ18-05	6977	b-p
	Central Atlantic Call Area B	NJ18-05	7026	c-d, g-h, j-p
	Central Atlantic Call Area B	NJ18-05	7029	a-g, i-o
	Central Atlantic Call Area B	NJ18-05	7079	a-c, e-g, i-k, m-o
	Central Atlantic Call Area B	NJ18-05	7129	a-c, e-g, i-k, m-o
	Central Atlantic Call Area B	NJ18-05	6928	
	Central Atlantic Call Area B	NJ18-05	6929	
	Central Atlantic Call Area B	NJ18-05	6978	
	Central Atlantic Call Area B	NJ18-05	6979	
	Central Atlantic Call Area B	NJ18-05	7027	
	Central Atlantic Call Area B	NJ18-05	7028	
	Central Atlantic Call Area B	NJ18-05	7076	
	Central Atlantic Call Area B	NJ18-05	7077	
	Central Atlantic Call Area B	NJ18-05	7078	
	Central Atlantic Call Area B	NJ18-05	7128	

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
B2	Central Atlantic Call Area B	NJ18-08	6123	c-d, g-h, l, p
	Central Atlantic Call Area B	NJ18-08	6173	d, g-h, k-l, o-p
	Central Atlantic Call Area B	NJ18-08	6223	c-d, g-h, k-l, o-p
	Central Atlantic Call Area B	NJ18-08	6273	c-d, g-h, k-l, o-p
	Central Atlantic Call Area B	NJ18-08	6323	c-d, g-h, k-l, o-p
	Central Atlantic Call Area B	NJ18-08	6124	
	Central Atlantic Call Area B	NJ18-08	6125	
	Central Atlantic Call Area B	NJ18-08	6126	
	Central Atlantic Call Area B	NJ18-08	6174	
	Central Atlantic Call Area B	NJ18-08	6175	
	Central Atlantic Call Area B	NJ18-08	6176	
	Central Atlantic Call Area B	NJ18-08	6224	
	Central Atlantic Call Area B	NJ18-08	6225	
	Central Atlantic Call Area B	NJ18-08	6226	
	Central Atlantic Call Area B	NJ18-08	6274	
	Central Atlantic Call Area B	NJ18-08	6275	
	Central Atlantic Call Area B	NJ18-08	6276	
	Central Atlantic Call Area B	NJ18-08	6324	
	Central Atlantic Call Area B	NJ18-08	6325	

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
B3	Central Atlantic Call Area B	NJ18-08	6522	p
	Central Atlantic Call Area B	NJ18-08	6572	d, h, l, o-p
	Central Atlantic Call Area B	NJ18-08	6622	c-d, g-h, k-l, o-p
	Central Atlantic Call Area B	NJ18-08	6672	b-d, f-h, j-l, n-p
	Central Atlantic Call Area B	NJ18-08	6473	
	Central Atlantic Call Area B	NJ18-08	6474	
	Central Atlantic Call Area B	NJ18-08	6475	
	Central Atlantic Call Area B	NJ18-08	6523	
	Central Atlantic Call Area B	NJ18-08	6524	
	Central Atlantic Call Area B	NJ18-08	6525	
	Central Atlantic Call Area B	NJ18-08	6573	
	Central Atlantic Call Area B	NJ18-08	6574	
	Central Atlantic Call Area B	NJ18-08	6575	
	Central Atlantic Call Area B	NJ18-08	6623	
	Central Atlantic Call Area B	NJ18-08	6624	
	Central Atlantic Call Area B	NJ18-08	6625	
	Central Atlantic Call Area B	NJ18-08	6673	
	Central Atlantic Call Area B	NJ18-08	6674	
	Central Atlantic Call Area B	NJ18-08	6675	

5.3. Nomination in Call Area C

5.3.1. Nomination Description

The nominated areas area approximately 193,217 acres in total. Based on our site characterization analysis, considering the methodology described in this section, Mainstream nominates the two areas as represented in Table 9.

Table 9: Identification of Extensions OCS Lease Blocks of Interest – Area C

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
C1	Central Atlantic Call Area C	NJ18-11	6217	b-d
	Central Atlantic Call Area C	NJ18-11	6218	a-d
	Central Atlantic Call Area C	NJ18-11	6219	a-d
	Central Atlantic Call Area C	NJ18-11	6220	a-d
	Central Atlantic Call Area C	NJ18-11	6017	
	Central Atlantic Call Area C	NJ18-11	6018	
	Central Atlantic Call Area C	NJ18-11	6019	
	Central Atlantic Call Area C	NJ18-11	6020	
	Central Atlantic Call Area C	NJ18-11	6067	
	Central Atlantic Call Area C	NJ18-11	6068	
	Central Atlantic Call Area C	NJ18-11	6069	
	Central Atlantic Call Area C	NJ18-11	6070	
	Central Atlantic Call Area C	NJ18-11	6117	
	Central Atlantic Call Area C	NJ18-11	6118	
	Central Atlantic Call Area C	NJ18-11	6119	
	Central Atlantic Call Area C	NJ18-11	6120	
	Central Atlantic Call Area C	NJ18-11	6167	
	Central Atlantic Call Area C	NJ18-11	6168	
	Central Atlantic Call Area C	NJ18-11	6169	
	Central Atlantic Call Area C	NJ18-11	6170	

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
C2	Central Atlantic Call Area C	NJ18-11	6221	a-d
	Central Atlantic Call Area C	NJ18-11	6222	a-d
	Central Atlantic Call Area C	NJ18-11	6223	a-d
	Central Atlantic Call Area C	NJ18-11	6224	a-d
	Central Atlantic Call Area C	NJ18-11	6021	
	Central Atlantic Call Area C	NJ18-11	6022	
	Central Atlantic Call Area C	NJ18-11	6023	
	Central Atlantic Call Area C	NJ18-11	6024	
	Central Atlantic Call Area C	NJ18-11	6071	

	Central Atlantic Call Area C	NJ18-11	6072	
	Central Atlantic Call Area C	NJ18-11	6073	
	Central Atlantic Call Area C	NJ18-11	6074	
	Central Atlantic Call Area C	NJ18-11	6121	
	Central Atlantic Call Area C	NJ18-11	6122	
	Central Atlantic Call Area C	NJ18-11	6123	
	Central Atlantic Call Area C	NJ18-11	6124	
	Central Atlantic Call Area C	NJ18-11	6171	
	Central Atlantic Call Area C	NJ18-11	6172	
	Central Atlantic Call Area C	NJ18-11	6173	
	Central Atlantic Call Area C	NJ18-11	6174	

5.4. Nomination in Call Area D

5.4.1. Nomination Description

The nominated areas area approximately 185,032 acres in total. Based on our site characterization analysis, considering the methodology described in this section, Mainstream nominates the two areas as represented in Table 10.

Table 10: Identification of Extensions OCS Lease Blocks of Interest – Area D

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
D1	Central Atlantic Call Area D	NJ18-11	6364	e-p
	Central Atlantic Call Area D	NJ18-11	6365	e-p
	Central Atlantic Call Area D	NJ18-11	6366	e-p
	Central Atlantic Call Area D	NJ18-11	6367	e-p
	Central Atlantic Call Area D	NJ18-11	6368	e-p
	Central Atlantic Call Area D	NJ18-11	6369	e-p
	Central Atlantic Call Area D	NJ18-11	6414	
	Central Atlantic Call Area D	NJ18-11	6415	
	Central Atlantic Call Area D	NJ18-11	6416	
	Central Atlantic Call Area D	NJ18-11	6417	
	Central Atlantic Call Area D	NJ18-11	6418	
	Central Atlantic Call Area D	NJ18-11	6419	
	Central Atlantic Call Area D	NJ18-11	6464	
	Central Atlantic Call Area D	NJ18-11	6465	
	Central Atlantic Call Area D	NJ18-11	6466	
	Central Atlantic Call Area D	NJ18-11	6467	
	Central Atlantic Call Area D	NJ18-11	6468	
	Central Atlantic Call Area D	NJ18-11	6469	

Mainstream Lease Area Nomination	BOEM Protraction Name	BOEM Protraction Number	Block Number	Sub Block(s)
D2	Central Atlantic Call Area D	NJ18-11	6515	
	Central Atlantic Call Area D	NJ18-11	6516	
	Central Atlantic Call Area D	NJ18-11	6517	
	Central Atlantic Call Area D	NJ18-11	6518	
	Central Atlantic Call Area D	NJ18-11	6519	
	Central Atlantic Call Area D	NJ18-11	6567	
	Central Atlantic Call Area D	NJ18-11	6568	
	Central Atlantic Call Area D	NJ18-11	6569	
	Central Atlantic Call Area D	NJ18-11	6514	
	Central Atlantic Call Area D	NJ18-11	6564	
	Central Atlantic Call Area D	NJ18-11	6565	
	Central Atlantic Call Area D	NJ18-11	6566	
	Central Atlantic Call Area D	NJ18-11	6616	
	Central Atlantic Call Area D	NJ18-11	6617	
	Central Atlantic Call Area D	NJ18-11	6618	
	Central Atlantic Call Area D	NJ18-11	6619	

6. Objectives and Facilities

(Redacted)

Mainstream Renewable Power is a global renewable energy company with over 17 GW in wind and solar assets. Our unique vision to electrify the world with renewable energy has driven our growth across five continents. The company is firmly on track to becoming a global pure-play renewable energy major and is focused on expanding its current development portfolio of over 15 GW with plans to bring 5.5 GW to financial close by 2023.

Mainstream is a leading developer of offshore wind at scale globally and since 2008 has developed over 3 GW of projects in Europe, including Hornsea One and Hornsea Two in England and Nearth na Gaoithe in Scotland. These projects represent 20% of the UK’s offshore wind capacity either in operation or under construction. Mainstream’s Centre of Excellence for Offshore Wind is focused on de-risking the best development sites, identifying the best partners for growth and innovating to deliver best value. In the US, we are currently focused on drawing on our experience in Europe and Asia to support the country’s goals to implement 30 GW of new offshore capacity by 2030. The water depths at the nominated areas are suitable for fixed-bottom turbines. In the sections below, Mainstream will describe the facilities that the company would use to build a wind project in the nominated areas off the Central Atlantic coast of the U.S.

6.1.1. Wind Turbine Generator

(Redacted)

6.1.2. Foundations

(Redacted)

6.1.3. Interconnection

(Redacted)

6.1.4. Ports and Logistics

(Redacted)

6.1.5. O&M Strategy

(Redacted)

6.1.6. Schedule

(Redacted)

6.1.7. Renewable Energy Resources and Environmental Conditions

(Redacted)

7. Abbreviations

Abbreviations	
BOEM	Bureau of Ocean Energy Management
CT Company	Corporation Trust Company
CTV	Crew Transfer Vessels
DoD	Department of Defense
EPC	Engineering, Procurement & Construction
ESA	Endangered Species Act
GIS	Geographic Information System
GW	Gigawatt
Km	Kilometer
Mainstream	Mainstream Renewable Power
MSL	Mean Sea Level
MW	Megawatt
NnG	Near na Gaoithe
OCS	Outer Continental Shelf
O&M	Operations and Maintenance

SOV	Service Operations Vessel
TLPs	Tension Leg Platforms
US	United States
USCG	United States Coast Guard
WTGs	Wind Turbine Generators