GREEN VOLT

Chapter 1
Introduction

Offshore EIA Report: Volume 1

Revision history

Revision	Date	Description	Prepared	Checked	Approved
1	10/11/2022	First draft	CB (Royal HaskoningDHV)	JM (Royal HaskoningDHV)	VC (Flotation Energy)
2	15/12/2022	Second draft	CB (Royal HaskoningDHV)	CM (Royal HaskoningDHV)	VC (Flotation Energy)
3	09/01/2023	Final for submission	SF (Royal HaskoningDHV	JM (Royal HaskoningDHV)	VC (Flotation Energy)

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Acronyms

Acronym	Description
CEMP	Construction Environment Management Plan
CES	Crown Estate Scotland
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMF	Electromagnetic fields
FLO	Fisheries Liaison Officer
GW	Gigawatt
HVDC	High Voltage Direct Current
IEMA	Institute of Environmental Management and Assessment
INTOG	Innovation and Targeted Oil and Gas
MHWS	Mean High Water Springs
MS-LOT	Marine Scotland Licencing Operations Team
MW	Megawatt
NSTA	North Sea Transition Authority
NTS	Non-Technical Summary
OSP	Offshore Substation Platform
s.36	Section 36
UK	United Kingdom

Glossary

Term	Description
Applicant	Green Volt Offshore Windfarm Ltd.
Buzzard	Buzzard Platform Complex.
Buzzard Export Cable Corridor	The area in which the export cables will be laid, from the perimeter of the Windfarm Site to Buzzard Platform Complex.
Green Volt Offshore Windfarm	Offshore windfarm including associated onshore and offshore infrastructure development (Combined On and Offshore Green Volt Projects).
Horizontal Directional Drilling	Mechanism for installation of export cable at landfall.
Inter-array cables	Cables which link the wind turbines to each other and the offshore substation platform.
Landfall Export Cable Corridor	The area in which the export cables will be laid, from the perimeter of the Windfarm Site to landfall.
Mean High Water Springs	At its highest and 'Neaps' or 'Neap tides' when the tidal range is at its lowest. The height of Mean High Water Springs (MHWS) is the average throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides).
Moorings	Mechanism by which wind turbine generators are fixed to the seabed.
NorthConnect Parallel Export Cable Corridor Option	Landfall Export Cable Corridor between NorthConnect Parallel Landfall and point of separation from St Fergus South Export Cable Corridor Option.
NorthConnect Parallel Landfall	Southern landfall option where the offshore export cables come ashore.
Offshore Development Area	Encompasses i) Windfarm Site, including offshore substation platform ii) Offshore Export Cable Corridor to Landfall, iii) Export Cable Corridor to Buzzard Platform Complex.

Offshore export cables	The cables which would bring electricity from the offshore substation platform to the Landfall or to the Buzzard Platform Complex.
Offshore Export Cable Corridor	The proposed offshore area in which the export cables will be laid, from offshore substation to landfall or to the Buzzard Platform Complex.
Offshore infrastructure	All of the offshore infrastructure, including wind turbine generators, offshore substation platform and all inter-array and export cables.
Offshore substation platform	A fixed structure located within the Windfarm Site, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
Onshore Export Cable Corridor	The proposed onshore area in which the export cables will be laid, from landfall to the onshore substation.
Project	Green Volt Offshore Windfarm project as a whole, including associated onshore and offshore infrastructure development.
Safety zones	An area around a structure or vessel which must be avoided.
St Fergus South Export Cable Corridor Option	Landfall Export Cable Corridor between St Fergus South Landfall and point of separation from NorthConnect Parallel Export Cable Corridor Option.
St Fergus South Landfall	Northern landfall option where the offshore export cables come ashore.
Windfarm Site	The area within which the wind turbine generators, offshore substation platform and inter-array cables will be present.

CHAPTER 1: INTRODUCTION

1.1 Introduction to the Project

1. Green Volt Offshore Windfarm Ltd. (hereafter referred to as 'the Applicant') is seeking consent to construct the Project (in this instance the Project refers to the offshore elements of the Green Volt Offshore Windfarm only, up to Mean High Water Springs (MHWS)). The Project is a proposed floating offshore wind farm located 80 km east of the Aberdeenshire Coast in the North Sea, with an indicative generating capacity of 490 to 560 megawatts (MW). The location of the Project is provided in **Figure 1.1**.

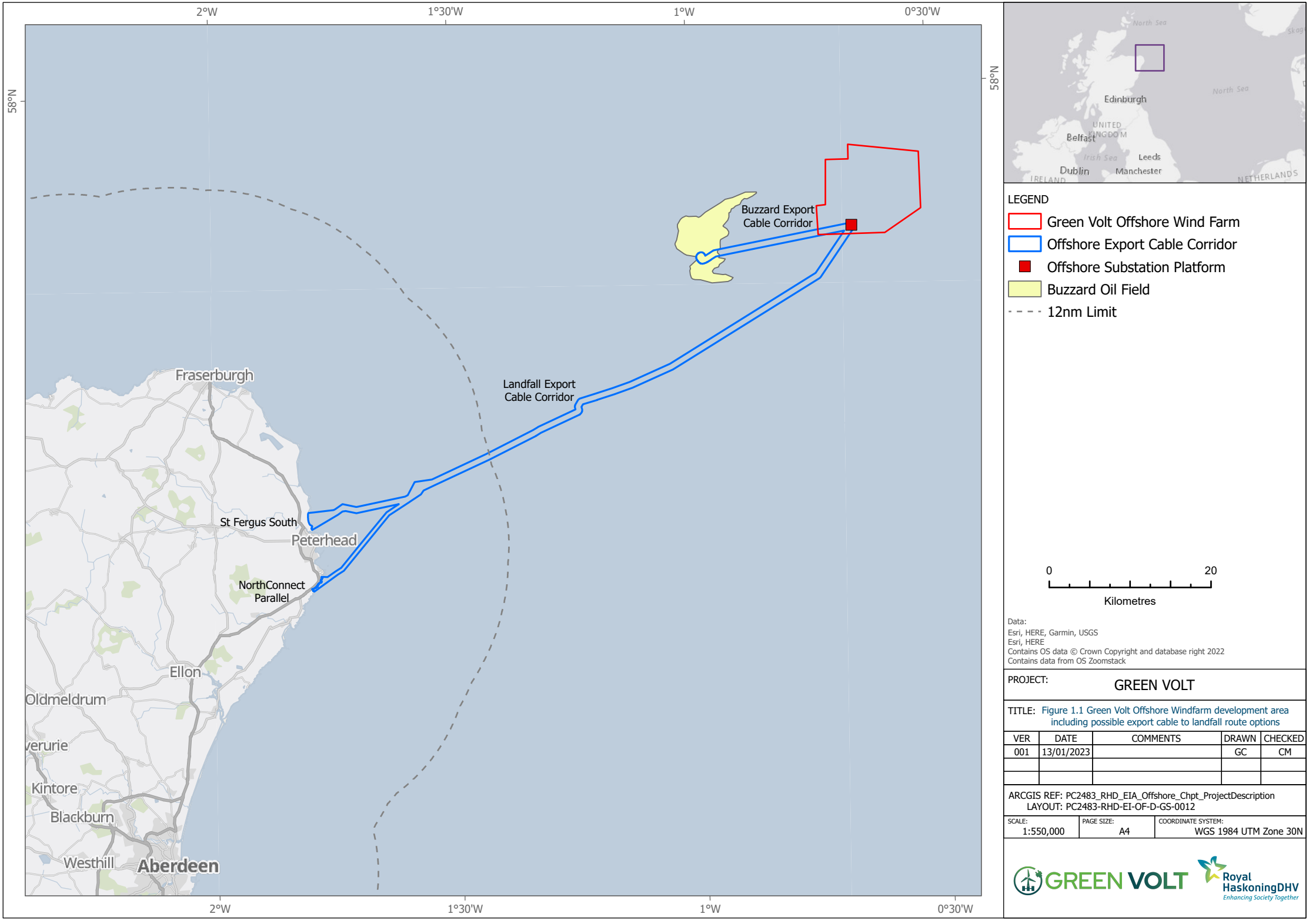
2. The Project will comprise of the floating offshore wind structures (wind turbines, floating substructures, anchor chains, anchors), as well as the offshore transmission infrastructure (offshore substation platform (OSP), inter-array cables, export cables). The Project will be located within a marine brownfield site, historically used by the oil and gas industry where decommissioning is currently being finalised. A full description of the Project components is provided in **Chapter 5: Project Description.**

3. The Project will provide oil & gas platforms in the Outer Moray Firth with renewable electricity, harnessed from the proposed wind farm. Whilst Outer Moray Firth platforms will have the potential to use Green Volt's electricity, a key target for the Project is the electrification of the Buzzard oil and gas platform complex (Buzzard). Buzzard is a large, relatively new facility with high power demand. Focusing the initial design around the decarbonisation of Buzzard provides an exciting opportunity to maximise potential emission savings, whilst offering a nearby connection point for other oil and gas installations looking to decarbonise their onboard power generation.

4. With an operational target date of 2027, the Project enables 500,000 tonnes of CO_2 per year to be mitigated, including at least 300,000 tonnes of CO_2 from oil and gas assets in the area. Any surplus power produced could be transmitted onshore to the National Grid.

5. The Project will be connected to the National Grid by a single export cable corridor which will make landfall on the coastline near Peterhead in the North-East of Scotland. The Project location and Offshore Export Cable Corridor route is provided in **Figure 1.1.**

6. This document is the **Offshore Environmental Impact Assessment (EIA) Report** for only the offshore components of the Project from MHWS. A separate **Onshore Scoping Report** was prepared and submitted for the onshore infrastructure associated with the Project (March 2022). The **EIA Report** for the onshore infrastructure will be submitted to Aberdeenshire Council in (2023).



Data:
Esri, HERE, Garmin, USGS
Esri, HERE

PROJECT: GREEN VOLT

TITLE: Figure 1.1 Green Volt Offshore Windfarm development area including possible export cable to landfall route options

VER	DATE	COMMENTS	DRAWN	CHECKED
001	13/01/2023		GC	CM

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1.2 Purpose of this Offshore EIA Report

7. This **Offshore EIA Report** describes the potential offshore environmental impacts from the Project and assesses the significance of their effect. It considers impacts that may arise from construction, operation (including likely planned maintenance activities) and decommissioning of the Project. The assessment also considers potential cumulative impacts in combination with other offshore projects currently being constructed or in the development planning stage.

8. The purpose of this **Offshore EIA Report** is to provide the necessary information and outcome of the EIA undertaken as required by:

   - The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 as amended by The Environmental Impact Assessment (Miscellaneous Amendments) (Scotland) Regulations 2017, which applies to all applications for Section 36 (s.36) consent in Scottish waters out to 200 nm.
   - The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017(as amended by The Environmental Impact Assessment (Miscellaneous Amendments) (Scotland) Regulations 2017, which applies to applications that require an EIA (as defined in schedule 2 of the 2017 Marine Works Regulations) for a marine licence from 0-12 nm.
   - The Marine Works (Environmental Impact Assessment) Regulations 2007 as amended by The Marine Works (Environmental Impact Assessment) (Amendment) Regulations 2011, The Marine Works (Environmental Impact Assessment) (Amendment) Regulations 2015 and The Marine Works (Environmental Impact Assessment) (Amendment) Regulations 2017, which applies to applications that require an EIA, for a marine licence from 12-200 nm.

9. Further details on the requirement for EIA are presented in **Chapter 3: Policy and Legislative Context.** This EIA process and **Offshore EIA Report** has been informed by a **Scoping Opinion** (**Appendix 1.1**) that was provided by Marine Scotland Licencing Operations Team (MS-LOT) on 19th April 2022 in response to an **Offshore Scoping Report** (**Appendix 1.2**) submitted by the Applicant in November 2021. Consultation feedback from communities, stakeholders and individuals has also been used to inform the Project design and impact assessment and associated **Offshore EIA Report**. A full description of the consultation undertaken throughout the EIA process is provided in **Chapter 6: EIA Methodology**.

10. This **Offshore EIA Report** is required to support the Applicant in acquiring the following offshore consents for the Project:

    - A s.36 consent under the Electricity Act 1989 to allow for the construction and operation of the offshore wind farm and transmission works;
    - A marine licence under the Marine and Coastal Access Act 2009 for the commencement of marine activities at the Project's wind farm site, located beyond 12 nautical miles from the coast;
    - A marine licence under the Marine and Coastal Access Act 2009 for the section of export cable from 12 nautical miles from the coast to the wind farm site;
    - A marine licence under the Marine and Coastal Access Act 2009 for the section of export cable between the wind farm site and the Buzzard Platform Complex; and
    - A marine licence under the Marine (Scotland) Act 2010 for the section of export cable which is within 12 nautical miles of the coast.

11. These three applications have been made within 12 months of receipt of the **Scoping Opinion**.

12. The overall objective of this **Offshore EIA Report** is to discuss any potential significant adverse effects resulting from the Project and outline how these effects are to be avoided or minimised

where possible, as well as identifying any opportunities for beneficial effects. A full description of the EIA methodology used as part of this **Offshore EIA Report** is provided in **Chapter 6: EIA Methodology**.

1.3 The Project

13. The Project has been designed to provide renewable electricity to an existing oil and gas facility in the North Sea to decarbonise its operations. The provision of renewable electricity to existing oil and gas facilities is increasingly being proposed with the support of the UK Government and industry through the North Sea Transition Deal that was agreed in March 2021. This North Sea Transition Deal accompanies the Government commitment made in November 2020 for 40GW of offshore wind by 2030 including 1GW of floating wind (HM Government, 2020). Further details of The North Sea Transition Deal are provided in **Chapter 2: Need for the Project.** A key commitment within this deal was a joint Government and oil and gas sector investment of up to £14-16 billion 2030 in new energy technologies to reduce carbon emissions by 50% against a 2018 baseline by 2030. This includes up to £3 billion to replace fossil-fuel based power supplies on oil and gas platforms with renewable energy, most notably offshore wind.

14. Marine Scotland is undertaking a spatial planning exercise for Innovation and Targeted Oil and Gas (INTOG) projects, and an Initial Plan Framework was published in August 2021. Crown Estate Scotland (CES), the INTOG Leasing Round, was announced in August 2021 and has been developed in alignment with Marine Scotland's Initial Plan Framework. The INTOG Leasing Round has been designed to allow developers to apply for the rights to build offshore wind farms specifically for the purpose of providing renewable electricity to power oil and gas facilities. Although the development of the Project has commenced ahead of the leasing round, the Applicant has also participated in the INTOG leasing round and applied for a site lease to enable development of the Project. The Project area is located entirely within the proposed Eb area of search identified as part of the INTOG leasing round.

15. The Project has an intended generating capacity of up to 560 MW, to be achieved within the Project design envelope parameters outlined as part of this **Offshore EIA Report**. It is intended that the Project will have two export cable corridors, with the primary one providing electricity to Buzzard and a secondary one to landfall on mainland Scotland to supply excess electricity to the National Grid at New Deer. Two potential landfall locations are being considered on the coastline near Peterhead in the northeast of Scotland and potential impacts for both options are presented in this **Offshore EIA Report**.

1.3.1 Project Design Evolution

16. The Project is comprised of a floating offshore wind farm which will be developed independently with an intended operational project design lifetime of 35 years. It is anticipated that the overall construction duration of the Project will be a maximum of 3 years.

17. A summary of the proposed set of optimised design parameters for the Project are provided in **Table 1.1**. Further details of the proposed design parameters are provided in **Chapter 5: Project Description** of this **Offshore EIA Report**.

Table 1.1 Summary of Design Parameters for the Project

Design Parameter	Optimised Design Envelope - the Project
Windfarm Site Area	116 km^2
Distance to shore from site boundary	80 km
Wind Turbine Generators	
Number of WTG within the array	Up to 35
Rotor Diameter (m)	220 - 242
Rotor Tip Height (m above Lowest Astronomical Tide; LAT)	242 - 264
Windfarm Total Rotor Swept Area (km^2)	1,330 - 1,610
Spacing between WTGs (m)	1,540 – 1,936
Floating Platforms	
Sub-Structure Type	Semi-submersible Platform (SSP) or Tension leg platform (TLP)
Mooring Lines	Catenary (for SSP) or TLP tendons
Anchor	Drag embedment anchors (for SSP) or Suction Piles (TLP)
Maximum Number of Anchors (per turbine)	3-6 (SSP) or 6 (TLP)
Cabling	
Length of Inter-Array Cables (km)	3.2 per Inter-Array cable (IAC). In total 134
Total Cable Length (km)	60 to Buzzard, 240 to landfall

1.4 Existing Consents

18. The Applicant is currently in the process of obtaining the necessary consents to develop the Project, as detailed in **Section 1.2** of this chapter. There are several existing consents associated with other infrastructure within the footprint of the Offshore Development Area that are already implemented.

19. The Landfall Export Cable Corridor will follow the same route that has been consented for the NorthConnect HVDC Link which will connect the UK and Norwegian electrical grids. The NorthConnect project has been granted the necessary marine licences for electrical cables following the submission of an EIA and associated stakeholder consultation. Additionally, Buzzard will receive the renewable electricity from the Project through a single Offshore Export Cable Corridor. The Buzzard oil and gas Platform Complex is covered by an existing production licence given by the Oil and Gas Authority, now called North Sea Transition Authority (NSTA), under the Petroleum Act 1998.

1.5 The Developer and Project Team

20. The Project is being developed by Flotation Energy Ltd (Flotation Energy) and Vårgrønn AS (Vårgrønn). Flotation Energy and Vårgrønn have formed the dedicated company, Green Volt Offshore Wind Ltd. (the Applicant), to progress the development of the Project.

21. Flotation Energy is an offshore wind development company, headquartered in Edinburgh, UK. Founded in 2018, the company is pioneering the deployment of both floating and fixed offshore wind in Scotland, the UK and Internationally. Flotation Energy's UK projects include:

- Green Volt Offshore Windfarm (this development) (Floating);
- Morecambe Offshore Windfarm (480 MW offshore wind, awarded as part of the England and Wales Round 4 auction) (Fixed); and
- White Cross Floating Windfarm (100 MW offshore wind, South West England) (Floating).

22. The company is also active in Europe and internationally, with a total offshore wind development pipeline of over 10 GW capacity. Flotation Energy is determined to play a central role in the transformation to renewable energy to confront the climate crisis, in line with targets made under the Paris Agreement. Further details of the UK's net-zero goals and the Projects contribution towards these is detailed in **Chapter 2: Need for the Project** of this **Offshore EIA Report**.

23. Vårgrønn is a growing agile offshore wind company and established as a joint venture between Italian energy major Eni Plenitude and the Norwegian private equity manager and offshore energy serial entrepreneur HitecVision.

24. Royal HaskoningDHV has been commissioned by the Applicant as the consultant to lead the Green Volt Offshore Windfarm **Offshore EIA Report**. Royal HaskoningDHV is an environmental and engineering consultancy with significant expertise in offshore renewable energy and is supported through the EIA process by a suite of experienced technical consultants who are responsible for particular specialist topics. A full list of the lead authors responsible for each technical area within this **Offshore EIA Report** is provided in further detail in **Table 1.2**.

25. Royal HaskoningDHV has provided environmental, development and consenting support on over 26 GW of offshore wind projects across more than 45 projects worldwide, including Scotland and the UK, over the last 20 years. Their EIA activities and associated documents are accredited by the Institute of Environmental Management and Assessment (IEMA) under the EIA Quality Mark Scheme. This demonstrates Royal HaskoningDHV's expertise in the field and commitment to ensuring EIA is maintained at high quality and in accordance with best practice.

26. Royal HaskoningDHV has been supported in preparing this **Offshore EIA Report** by APEM, Anatec, MSDS Marine, APEM Wind Business Support Ltd, National Grid and Seiche as specialist subcontractors.

27. APEM are a global environmental consultancy providing independent advice and guidance to support government and environmental regulatory guidelines. APEM support a wide range of industries, providing independent environmental consultancy and expert advice. For the Project APEM undertook the ornithological assessment and benthic analysis. APEM also undertook ornithological and marine mammal assessments as part of the **Report to Inform Appropriate Assessment.**

28. Anatec Limited are a Scottish marine risk consultancy with a head office in Aberdeen. Anatec have extensive experience of carrying out shipping and navigation assessments for offshore renewables projects as well as other marine developments such as oil and gas installations, ports, marinas, cable routes and dredging activities in the UK and Worldwide. Their key personnel have been at the forefront of the marine hazard analysis and risk management field for 20-30 years. During this time, they have worked closely with regulators, stakeholders and industry to ensure the analysis they provide satisfies their requirements. In the past 15 years, Anatec have also completed Vessel Traffic Surveys, Navigational Risk Assessments and EIA Report chapters for the vast majority of UK offshore wind farm sites, including Scottish sites such as Moray East/West, Seagreen 1, Robin Rigg, Aberdeen Bay, Hywind Scotland, Kincardine, Beatrice, Inch Cape and Neart Na Gaoithe. Anatec have carried out a large number of ship collision studies for BP worldwide over the last 20 years. Most recently for offshore wind Anatec have worked on the Ocean Energies site selection for the ScotWind sites.

29. MSDS Marine are a marine and coastal archaeological contractor specialising in the management and support of archaeological projects. MSDS Marine offer a full range of archaeological services including, but not limited to consultancy, research, desk-based services, remote sensing, conservation, ground-truthing and diving services. The MSDS team includes individuals who are specialists in the support of development projects, diving, historic vessels, heritage management, historic and archival research, assessment, and management of significant, survey, conservation and stakeholder management.

30. Ian Fletcher (B.Eng) of Wind Business Support, has been working on the impacts of wind turbines on aviation interests since 1998. His work as an independent consultant serving the UK development sector has thrived since its inception in 2002. His commitment to this area evolved from his work for UK government, establishing and chairing the UK wind energy aviation interests working group. Ian has established strong links with the Ministry of Defence, NATS, the Civil Aviation Authority, the Air Traffic Control community and technology providers. As an independent aviation consultant, Ian has worked on in excess of 1000 projects involving around 50 aerodromes and technical sites across the UK.

31. Dr Tripp, from National Grid undertook electromagnetic fields assessments for the marine environment. Dr Tripp is an electric and magnetic fields (EMFs) specialist for National Grid with over 20 years of experience in the role. She is a technical specialist on all aspects of electromagnetic fields including health, calculations, policy and compliance. She holds a Ph.D. specialising on the effects of EMFs on the circadian system. She sits on numerous European and International technical committees on the subject, with specialisms including microshocks and EMF interference with active implanted medical devices. She has extensive experience working on the development of strategic schemes and EMF assessments for planning applications, some examples include the Development Consent Order for the Hinkley Connection Project, Richborough Overhead line Scheme, planning applications for the Western Link High Voltage Direct Current (HVDC) at Flintshire Bridge in Deeside, the NEMO Interconnector between the UK and Belgium, and the Hutton Series Compensation near Kendal in the Lake District.

32. Specialising in underwater acoustics and noise measurement, Seiche provides services to the oil and gas, renewables, construction and marine science sectors. Seiche provided the underwater noise modelling used for several of the receptor assessments.

1.6 Structure of the EIA Report and Technical Authors

33. This **Offshore EIA Report** is comprised of two volumes:

- Volume 1: EIA Report Chapters (chapter list shown in **Table 1.2**)
- Volume 2: Appendices

34. In addition, a separate stand-alone **Non-Technical Summary** (NTS) is available which summarises the key baseline data and findings of the **Offshore EIA Report**. A **Report to Inform Appropriate Assessment** has also been submitted to MS-LOT, which provides the information for the competent authority to undertake an Appropriate Assessment. The Appropriate Assessment will determine if the Project is likely to have a significant effect on a European site as required under Habitats Regulations (Conservation (Natural Habitats, &c.) Regulations 1994 as amended) and the Conservation of Offshore Marine Habitats and Species Regulations 2017.

35. The technical chapters are presented in topic groups to provide a clear structure within the EIA. The first technical chapter group provides the Project introduction and definition, the requirement for the Project and any necessary policy and legislation, an overview of the scoping and consultation undertaken to date and a description of the EIA methodology undertaken for this **Offshore EIA Report**. The second technical chapter group provides an assessment of the offshore biological environment. The third technical chapter group provides an assessment of the offshore human

environment. Royal HaskoningDHV are the lead EIA consultant to lead the writing of the technical chapters of this **Offshore EIA Report**. Royal HaskoningDHV have been supported by sub-contractors APEM, Anatec and Wind Business Support Ltd on specific technical chapters. The chapters of this **Offshore EIA Report** and the relevant technical authors are presented in **Table 1.2** below.

Table 1.2 The Project EIA and Supporting Team

EIA Technical Chapter	Chapter Number(s)	Lead Author
Introduction	1	Royal HaskoningDHV
Need for the Project	2	Royal HaskoningDHV
Policy and Legislative Context	3	Royal HaskoningDHV
Site Selection and Assessment of Alternatives	4	Royal HaskoningDHV
Project Description	5	Royal HaskoningDHV
EIA Methodology	6	Royal HaskoningDHV
Marine Geology Oceanography and Physical Processes	7	Royal HaskoningDHV
Marine Sediment and Water Quality	8	Royal HaskoningDHV
Benthic Ecology	9	Royal HaskoningDHV
Fish and Shellfish Ecology	10	Royal HaskoningDHV
Marine Mammal Ecology	11	Royal HaskoningDHV
Offshore and Intertidal Ornithology	12	APEM
Commercial Fisheries	13	Royal HaskoningDHV
Shipping and Navigation	14	Anatec
Offshore Archaeology and Cultural Heritage	15	Royal HaskoningDHV and MSDS Marine
Aviation and Radar	16	Royal HaskoningDHV, Flotation Energy and Wind Business Support Ltd
Industry and Other Marine Users	17	Royal HaskoningDHV
Climate Change	18	Royal HaskoningDHV
Socioeconomics, Tourism and Recreation	19	Royal HaskoningDHV
Transboundary Cumulative Impacts	20	Royal HaskoningDHV
Summary	21	Royal HaskoningDHV

36. The following documents are provided in addition to the submission of this **Offshore EIA Report** and appendices:

- Covering Letter;
- Marine Licence Application Forms;
- Section 36 Application;
- Non-Technical Summary;
- Newspaper advertisement
- Site drawings with a red line boundary;
- Scoping Opinion (**Appendix 1.1**)
- Offshore Pre-Application Consultation Report (**Appendix 6.2**);
- Navigational Risk Assessment (**Appendix 14.1**);

- Gap Analysis Spreadsheet;
- Commitments Register; and
- Offshore Report to Inform Appropriate Assessment.
- Summary of Offshore and Onshore Environmental Impact Assessments.

37. The **Offshore EIA Report** technical chapters detailed in **Table 1.2** only cover the offshore infrastructure associated with the Project. A separate **Onshore EIA Report** will provide an assessment of the Project's onshore infrastructure. Where a technical topic is required to be assessed for both offshore and onshore, such as socioeconomics, a separate chapter is provided in the **Onshore EIA Report** for the Project's onshore infrastructure. It is recognised that the onshore EIA assessment will be undertaken later than the submission of the **Offshore EIA Report**. To enable consideration of the on and offshore elements of the Project as a whole, an additional document has been prepared. This additional document is called the **Summary of Offshore and Onshore Environmental Impact Assessments** and provides a summary of the **Offshore EIA Report** and the predicted summary of the onshore EIA. It will be submitted to the Scottish Ministers along with the offshore application documents and will be available on the Green Volt website[1]. If required, it will be updated upon completion of the **Onshore EIA Report**.

1.7 Consent Plans

38. **Table 1.3** details the Consent Plans proposed within this **Offshore EIA Report** and discussed in relevant technical chapters, and which will be developed prior to construction. In addition, an offshore Ecological Clerk of Works (ECoW) and Fisheries Liaison Officer (FLO) will be appointed to the Project, subject to confirmation by MS-LOT. The Applicant's company environmental management systems will be translated for use in the Project and referenced within the Construction Environment Management Plan (CEMP). The final suite of consent plans and their contents will be determined by consent conditions applied to the Project by the Scottish Ministers.

Table 1.3 Consent Plans

Consent Plan	Description
Biosecurity Plan (Offshore)	Provides details of guidance and mitigation measures to minimise the introduction and transfer of invasive non-native species.
Decommissioning Plan	Gives details of all aspects of the Project, from the associated effects the infrastructure will have on the surrounding environment to the current known methods to undertake the decommissioning.
Cable Plan	Contains details on environmental sensitivities and design considerations to mitigate, as far as possible, the effects of export or inter-array cable laying and associated protection during installation and operation of the Project.
Emergency Response Co-operation Plan	Ensures the co-operation with the Maritime and Coastguard Agency by detailing the design parameters of the Project, emergency contact details, and processes to be followed.
Fisheries Management and Mitigation Strategy	Details approach to undertaking pre-construction, construction, and operational works in co-operation with existing commercial fisheries activities, developed in consultation with fishing representatives
Marine Pollution Contingency Plan	Ensures appropriate measures and procedures are undertaken in the event of a pollution incident
Piling Strategy	Piling methods and programme are detailed and includes the mitigation of the effects on noise sensitive species.
Project Environmental Monitoring Programme	Outlines the monitoring strategy for proposed monitoring to be undertaken pre-construction, during construction and post construction. The PEMP will be updated to reflect Development environmental monitoring results as required.
Protocol for Archaeological	Provides procedures for reporting and investigation unexpected archaeological discoveries found during site investigations and construction.

[1] *https://greenvoltoffshorewind.com/*

Consent Plan	Description
Discoveries	
Vessel Management Plan and Navigational Safety Plan	Provides the management and coordination of vessels to mitigate the impact of vessels.
Lighting and Marking Plan	The plan sets out the marine and aviation navigational lighting and marking measures to be applied during the construction and operation of the Project
Written Scheme of Investigation	A method statement that clearly details the process and approach to undertaking heritage works associated with the Project's construction.
Marine Mammal Mitigation Protocol	Sets out the protocol of how the Project would mitigate potential impacts to marine mammals during construction activities and meet any relevant licence conditions associated with the marine mammals.
CEMP	Outlines how the construction activities for the Project will avoid, minimise or mitigate effects on the environment and surrounding area.
Development Specification and Layout Plan	Sets the final design and layout parameters associated with the Offshore Development Area

References

HM Government (2020) Ten Point Plan for a Green Industrial Revolution, November 2020 Available at: The Ten Point Plan for a Green Industrial Revolution (publishing.service.gov.uk) Accessed 5/10/2022

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