

# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

Appendix F - Non-Statutory Consultation and Engagement

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F - Non-Statutory Consultation and Engagement		nsultation and
Document Number:	005028801-02	Contractor Reference Number:	N/A

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Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE

#### **Unrestricted**



# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

**Appendix F1 - Minutes of Meetings - ETG** 

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 

Unrestricted



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F1 - Minutes of Meetings - ETG		ngs - ETG
Document Number:	005028802-02	Contractor Reference Number:	N/A

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01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE

#### **Unrestricted**



Meeting Title	Meeting Date	Consultees
Traffic and Access, Onshore Noise and Air Quality - Pre- Scoping (ETG 1)	14th September 2021	National Highways Lincolnshire County Council East Riding County Council
Onshore Ecology and Ornithology - Pre-Scoping	14th September 2021	Natural England Environment Agency RSPB Durham Wildlife Trust Yorkshire Wildlife Trust Durham County Council East Riding of Yorkshire Council
Historic Environment - Pre- Scoping (ETG 1)	15th September 2021	Historic England East Riding of Yorkshire Council Lincolnshire County Council East Lindsey District Council
Historic Environment - Pre- Scoping (ETG 1)	15th September 2021	Durham County Council Hartlepool Borough Council
Water Resources - Pre-Scoping (ETG 1)	17th September 2021	Environment Agency East Riding of Yorkshire Council Yorkshire and Humber Drainage Board Beverley & North Holderness Internal Drainage Board
Marine Mammal and Underwater Noise - Pre- Scoping (ETG 1)	17th September 2021	Natural England The Wildlife Trusts MMO
Seascape and Lnadscape and Visual Impact Assessment (SLVIA) - Pre- Scoping (ETG 1)	23rd September 2021	Natural England Durham County Council Lincolnshire County Council The Wildlife Trusts East Riding of Yorkshire Council

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Meeting Title	Meeting Date	Consultees
MCA/Trinity House Pre-Scoping Meeting	27th September 2021	MCA Trinity House
Seabed - Pre- Scoping (ETG 1)	28th September 2021	Natural England The Wildlife Trusts MMO North Eastern IFCA
Offshore Ornithology - Pre- Scoping (ETG 1)	13th October 2021	Natural England RSPB MMO
Site Selection ETG	4th May 2022	East Riding of Yorkshire Council Environment Agency Historic England MMO NEIFCA RSPB Yorkshire Wildlife Trust York Consortium of Drainage Boards National Highways Natural England The Wildlife Trusts
Site Selection ETG	23rd May 2022	Natural England MMO
Seabed - Method Statements	26th May 2022	Natural England Joint Nature Conservation Committee North Eastern IFCA MMO Environment Agency Cefas
Geological Sites at Landfall	26th September 2022	Natural England East Riding of Yorkshire Council

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Meeting Title	Meeting Date	Consultees
Onshore Archaeology – Survey Update	20th October 2022	Historic England Humber Archaeology Partnership
Traffic and Access - PEIR Approach	21st November 2022	National Highways Hull City Council
Traffic and Access - PEIR Approach and Access	23rd November 2022	East Riding of Yorkshire Council
LVIA – PEIR Approach	13th December 2022	East Riding of Yorkshire Council Hull City Council Historic England
Onshore and Offshore Archaeology – PEIR Approach	19th January 2023	East Riding of Yorkshire Council Historic England Humber Archaeology Partnership
Marine Physical Environment – PEIR Approach	20th January 2023	Natural England Environment Agency JNCC MMO
Offshore Ornithology - PEIR Approach	7th February 2023	Natural England RSPB Lincolnshire Wildlife Trust JNCC The Wildlife Trusts
Seabed ETG - PEIR Approach (ETG 2)	7th February 2023	Natural England Environment Agency Cefas JNCC MMO The Wildlife Trusts



Meeting Title	Meeting Date	Consultees
Marine Mammals ETG – PEIR Approach	21st February 2023	Natural England MMO Lincolnshire Wildlife Trust JNCC The Wildlife Trusts
Terrestrial Ecology and Ornithology – Project Update, Surveys, PEIR Assessment	20th April 2023	East Riding of Yorkshire Council Environment Agency Natural England
Non-Kittiwake Compensation Call	9th May 2023	Natural England MMO RSPB Lincolnshire Wildlife Trust JNCC The Wildlife Trusts
Offshore Archaeology - Geophysical / Geoarchaeological Assessment Approach	10th May 2023	Historic England
Onshore Heritage ETG – Onshore Archaeology and Heritage Update	25th May 2023	Humber Archaeology Partnership Historic England
Traffic and Transport – Indicative Access Design	23rd June 2023	East Riding of Yorkshire Council
Noise and Air Quality – PEIR Assessments	3rd July 2023	East Riding of Yorkshire Council Hull City Council

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Meeting Title	Meeting Date	Consultees
Flood Risk and Hydrology / Geology and Land Use - PEIR Assessments	20th July 2023	Beverley & North Holderness Internal Drainage Board East Riding of Yorkshire Council Environment Agency
Traffic and Transport - Project Update and PEIR Comments	6th September 2023	Hull City Council National Highways JSJV
Traffic and Transport - Project Update and PEIR Comments	8th September 2023	East Riding of Yorkshire Council
Marine Physical Environment – PEIR Comments	11th September 2023	Natural England MMO Cefas Environment Agency
Marine Mammals – PEIR Comments	14th September 2023	Natural England MMO Lincolnshire Wildlife Trust JNCC The Wildlife Trusts Cefas
Offshore Archaeology - PEIR Comments	20th September 2023	Historic England Hull Archaeological Partnership
Seabed ETG - PEIR Comments (ETG 3)	21st September 2023	Natural England MMO Cefas Environment Agency Lincolnshire Wildlife Trust JNCC The Wildlife Trusts

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Meeting Title	Meeting Date	Consultees
Noise ETG – ES Assessment Methodology	21st September 2023	East Riding of Yorkshire Council
Noise and Air Quality ETG	27th November 2023	East Riding of Yorkshire Council Hull City Council
Onshore Historic Environment ETG	5th December 2023	Historic England Humberside Archaeological Partnership East Riding of Yorkshire Council
Flood Risk and Geology ETG	7th December 2023	Beverley and North Holderness Internal Drainage Board (IDB) Natural England
Terrestrial Ecology ETG	11th December 2023	East Riding of Yorkshire Council Environment Agency Yorkshire Wildlife Trust
Flood Risk and Geology ETG	13th December 2023	Environment Agency East Riding of Yorkshire Council
PRoW and Access ETG	14th December 2023	East Riding of Yorkshire Council Kingston upon Hull & East Riding of Yorkshire area, Joint Local Access Forum
Terrestrial Ecology ETG	14th December 2023	Natural England
Offshore Archaeology - Geoarchaeological and palaeo landscape assessment discussion	14th December 2023	Historic England

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Meeting Title	Meeting Date	Consultees
Human Health ETG Meeting	19th December 2023	UK Health Security Agency East Riding of Yorkshire Council Department of Health and Social Care
Marine Mammals – Pre ES ETG	15th January 2024	Natural England MMO Cefas
Landscape and Visual ETG	26th January 2024	East Riding of Yorkshire Council
Benthic Ecology / Marine Physical Environment - Pre- ES ETG	29th January 2024	Natural England MMO Cefas Environment Agency JNCC The Wildlife Trust Lincolnshire Wildlife Trust
Offshore Ornithology - Pre- ES ETG	6th February 2024	Natural England RSPB MMO Lincolnshire Wildlife Trust
Fish and Shellfish Ecology - Pre-ES ETG	23rd February 2024	Natural England MMO Cefas Environment Agency Lincolnshire Wildlife Trust
Traffic and Transport ETG	27th February 2024	East Riding of Yorkshire Council
Draft Auk Compensation Plan (Meeting 1) ETG	29th February 2024	Natural England RSPB MMO

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Meeting Title	Meeting Date	Consultees
Traffic and Transport ETG	7th March 2024	National Highways Hull City Council
Noise and Air Quality ETG Meeting	14th March 2024	East Riding of Yorkshire Council Hull City Council
Onshore PRoW and Access ETG	14th March 2024	East Riding of Yorkshire Council Kingston upon Hull & East Riding of Yorkshire area Joint Local Access Forum
Landscape and Visual Impact ETG	15th March 2024	East Riding of Yorkshire Council Hull City Council
Onshore Historic Environment ETG Meeting	19th March 2024	Humber Archaeological Partnership Historic England East Riding of Yorkshire Council
Terrestrial Ecology ETG	19th March 2024	East Riding of Yorkshire Council Yorkshire Wildlife Trust Natural England
Flood Risk and Geology ETG	20th March 2024	East Riding of Yorkshire Council Environment Agency Beverley & North Holderness IDB
Human Health ETG Meeting	25th March 2024	UK Health Security Agency Office of Health Improvement and Disparities East Riding of Yorkshire Council Director of Public Health
Draft Auk Compensation Plan (Meeting 2) ETG	10th April 2024	MMO Natural England RSPB Lincolnshire Wildlife Trust JNCC The Wildlife Trusts

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Meeting Title	Meeting Date	Consultees
Benthic Compensation Plan ETG	11th April 2024	MMO Natural England Cefas Environment Agency JNCC The Wildlife Trusts Lincolnshire Wildlife Trust
Kittiwake Compensation Plan ETG	25th April 2024	MMO Natural England RSPB Lincolnshire Wildlife Trust JNCC The Wildlife Trusts

#### **MEETING MINUTES**

Title of Meeting	Dogger Bank South Traffic and Access, Onshore Noise and Air Quality Expert Topic Group – Pre-Scoping
Date	14 <sup>th</sup> September 2021
Time	10.00 – 12.00
Location	Online – Microsoft Teams
Document Reference	TBC
Number	

Attendees	Initials	Role and Organisation
	AB	Onshore Consent Lead, RWE
	VR	Onshore Consent Manager, RWE
	AM	Onshore Land Manager, RWE
	CS	Onshore Lead, Royal HaskoningDHV
	ST	Traffic Lead, Royal HaskoningDHV
	НМ	Noise Lead, Royal HaskoningDHV
	CG	Air Quality Lead, Royal HaskoningDHV
	SG	National Highways
	IF	Lincolnshire County Council (Highways)
	DH	East Riding County Council (Environmental Control)

Number	Details	Action
1.	Welcome and introductions  SG – confirmation sought that DBS is separate to Hornsea Four. SG is working on Hornsea Four and is aware of little impact on National Highways assets – the key issue is around the use of Port of Hull to Creyke Beck substation for abnormal loads.	
	SG requested a copy of the meeting minutes and recording to be provided to	CS
2.	Dogger Bank South offshore wind farm  AB – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements.	None



	CS – overview of the current status of the projects. The Scoping Report is currently being drafted and The Crown Estate Plan Level HRA assessment is ongoing.  CS – Onshore grid connection – The location of the National Grid substation is currently unknown, it is due to be confirmed by National Grid in early 2022. There are currently three broad search areas being considered – Hawthorn Pit, Creyke Beck and South of Humber.  CS – Indicative programme – Key dates include Scoping Report submission in November 2021, PEIR submission January 2023 and DCO Submission November 2023.	
3.	The Evidence Plan Process (EPP)  CS – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, discussed documents to be produced  CS – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required.	None
4.	Scoping Report & Approach to EIA CS – Approach to scoping – use of the three broad onshore search areas. Due to the size of the areas the majority of issues remined scoped in. CS – Scoping programme – Scoping Opinion due 24 <sup>th</sup> December 2021. After the Scoping Opinion is received there will be another ETG meeting to discuss that opinion.  Traffic ST noted that comments were only sought from the ETG in regards to 'South of Humber' study area and National Highways in relation to the 'Creyke Beck' study area. Further comments would be sought from ERYC Highways, and Durham County Council at a later ETG (if required).  ST explained the proposed approach to capturing traffic data for neutral periods and where possibly using open source data from the Department of Transport. ST requested confirmation from stakeholders on accepting new traffic counts from September 2021 onward given the Covid-19 pandemic. SG and IF confirmed that the use of DfT data and new counts from September 2021 was acceptable.	



ST requested if baseline data should consider seasonality trends or use a neutral period. SG confirmed that neutral periods should be used for the strategic road network (SRN).

IF highlighted that flows tend to be higher in July and August due to visitors and tourism to the area. IF advised that the projects should seek to gain an understanding of how much higher traffic flows are over the summer months. ST confirmed this would be considered and would seek to obtain the appropriate level of data from LCC.

ST explained the proposed approach to collecting collision data and noted that due to the extent of the study areas it would be proposed to undertake a high level search using open source data (of the latest 5 years) to identify any collision clusters or roads with collision rates higher that the national average. Where clusters or rates were higher than national averages, stats19 data would be sourced for these areas and examined them in further detail. SG and IF confirmed acceptance of this approach.

ST requested clarification as to whether the projects need to consider the pre Covid-19 period for road safety data. ST explained that whilst traffic flows were lower, evidence pointed to a higher proportion of collisions involving vulnerable road users, therefore clarification is sought on how this should be approached. SG and IF confirmed that it would be best to use the latest five available years, i.e. inclusive of the Covid 19 lockdown periods.

ST explained that once the onshore study area has been refined, further work will be undertaken to identify sensitive receptors.

ST explained that consideration of the future traffic growth (including cumulative projects) will also be addressed at a later stage and further engagement on this with the ETG will be undertaken to confirm the approach and appropriate methodology for this.



ST outlined that further engagement will be undertaken with the ETG (once there is greater detail in relation to the projects infrastructure) to agree the approach to deriving construction traffic demand and assigning this to the study area. ST noted that it would be proposed that traffic demand will be from a first principles perspective, i.e. looking at the construction traffic and where volumes of material (concrete and stone) will originate from and need to be transported to. ST advised that HGV distribution will be informed by a review of the local supply chain e.g. ports, quarries and that employee distribution is typically informed by the socioeconomic assessment.

ST outlined the proposed impacts that would be considered for the construction phase (namely, severance, amenity, road safety, driver delay and abnormal loads). SG and IF confirmed agreement on the impacts that have been scoped in.

ST outlined that for the operational phase, the projects would be largely unmanned and therefore it would be proposed to scope this phase out of the assessment. SG and IF agreed that this was acceptable.

SG advised that the Humber Bridge carrying capacity is a maximum of 350 tons and therefore may be of interest for RWE to be aware of. ST explained that an abnormal load assessment will be undertaken for which the carrying capacity of bridges will be included. SG agreed with this approach.

ST explained that the projects do not know where the ports that would be used for the offshore construction or operation of the projects. ST explained that the proposed approach for offshore impacts would be to agree with stakeholders that this aspect would be dealt with by means of a Requirement in the DCO to producing a Port Traffic Management Plan. SG and IF accepted this approach and raised no concerns at this time.



ST described the approach to decommissioning in that a decommissioning plan would be in place but given the difficulty in predicting a traffic baseline in 20-30years time, it is proposed to be dealt with at a high level. SG and IF agreed with this approach.

The approach to the traffic assessment was presented and ST advised that full details were in the Scoping Report and requested stakeholders' comments through the scoping process. SG and IF agreed to provide comments through the scoping responses.

A high-level overview of the proposed traffic DCO application documents was presented. ST asked if a separate Transport Assessment would be required or if it would be better consolidated within the ES Traffic and Transport chapter. SG and IF agreed that a separate Transport Assessment would be beneficial.

ST asked if a separate construction phase Travel Plan would be required or if information could be contained within the Construction Traffic Management Plan. IF and SG agreed that a separate construction Travel Plan would not be required.

#### Onshore Noise

HM presented an overview of the approach that has been taken for onshore noise within the Scoping Report. Existing noise sources within sensitive areas have been used, in combination with Google Imagery, to identify the existing baseline conditions from a noise perspective. Open data sources have also been used and the findings of which for each onshore search area is presented within the Scoping Report. No concerns or issues were raised regarding the information or approach presented to stakeholders.

DH enquired whether other projects, proposed developments etc would be considered within the noise assessment. HM advised that consideration would be given and this would form part of the projects Cumulative Impact Assessment.



DH advised that there is a LIDAR data set available for which would be happily shared with RWE.

HM explained that the noise assessment will mainly focus on human receptors; however, noise data/information will be provided to the ecology team who will if required consider potential noise impacts on ecological receptors. No concerns or issues were raised regarding the information or approach presented to stakeholders.

HM advised that noise sources and sensitive noise receptors have been identified and these will be considered in the noise modelling. HM advised that once a refined onshore study area has been identified, a baseline noise survey will be undertaken and the findings of which used to inform the noise modelling and assessment. HM also highlighted that the proposed scope and methodology for the baseline noise survey will be provided and agreed with stakeholders prior to it being undertaken. HM advised that the baseline noise survey would take continuous measurements over a week to capture both weekday and weekend variations in noise level. No concerns or issues were raised regarding the information or approach presented to stakeholders.

HM presented the potential impacts that have been identified and presented within the Scoping Report. No concerns or issues were raised regarding the information or approach presented to stakeholders. DH agreed with proposed approach and Scoping Report information. DH advised that vibration during the construction phase (pile driving at a coastal location) has arisen within one of their coastal town from an offshore wind farm development, therefore it may be beneficial for RWE to be aware of this. HM advised that construction effects (including vibration) will be considered.

HM presented the proposed approach to the noise assessment and guidance that will be used to inform the assessment. No concerns or issues were raised regarding the information or approach presented to stakeholders.

Air Quality



CG advised that given the current extent of the onshore search areas, the AQ work to date has been at a high level. CG explained the approach that has been taken in order to characterise each onshore search area for the air quality considerations. No concerns or issues were raised regarding the information or approach presented to stakeholders.

CG requested clarification as to the main pollution sources within the onshore search areas given the areas are predominately rural and therefore air quality is good. CG acknowledged that there are major roads present and potentially there are other sources of pollution but requested clarification from stakeholders as to whether there is anything specific. DH advised that there is nothing glaringly missing although advised that there are colleagues who are air quality specialists and therefore will check with them and advise should there be anything. DH advised that air quality status reports are published annually and therefore would be happy to share these.

DH advised that in terms of dust, given it is predominately rural in nature, the area does experience high dust levels associated with farming practices at certain times of the year and therefore this will need to be duly considered. CG confirmed that this would be considered in the air quality modelling and assessment.

CG provided an overview on the data collection that has been undertaken to date for the purposes of the scoping report. CG re-iterated that given the large onshore study areas existing air quality data has been obtained through data sets held by the local authority and once refinements are made further data collection will be sought. No concerns or issues were raised regarding the information or approach presented to stakeholders.



CG advised that some local authority air quality monitoring data is available and therefore this has been gathered. CG highlighted that as there are main highway networks within the areas these tend to be the places where monitoring is focussed so we would expect that there will be sufficient air quality monitoring data available to inform the assessment. No concerns or issues were raised regarding the information or approach presented to stakeholders.

CG advised that the air quality assessment will be using information from Defra's background mapping and the other standard air quality data sets on background deposition and pollution concentrations at designated ecological sites from the APIS website. No concerns or issues were raised regarding the information or approach presented to stakeholders.

DH advised that there is a network of nitrogen dioxide tubes around the county that monitor air quality and therefore if relevant would be happy to share this data set with RWE.

CG presented the proposed scoped in and out air quality impacts that will be presented in the scoping report. Emissions during the operational phase have been scoped out as no dust or any other emissions are anticipated to be generated given the nature of works (i.e. maintenance) during the operational phase of the projects. No concerns or issues were raised regarding the information or approach presented to stakeholders.

CG advised that human and ecological receptors will be considered in the air quality assessment. However, CG highlighted that the scale of the assessment will depend on the nature of the activities, how far they are from receptors and the duration of works. Once further information is available, the approach and scope of the air quality assessment will be re-presented and agreed with stakeholders. This approach was agreed by stakeholders and no concerns raised.



	CG presented the proposed air quality assessment approach, i.e. in accordance with industry guidance. No concerns or issues were raised regarding the information or approach presented to stakeholders. CG asked if DH is aware of any local specific guidance being adopted. DH advised that he was not aware of any and therefore the industry accepted approach was agreed.	
5.	Site selection methodology  CS – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection.  CS – Key dates for the site selection process. Confirmation of grid connection location by National Grid is expected in March 2022. Design refinements will continue up to DCO submission in November 2023.	None
6.	AoB None	



# **Agreement / Disagreement Log**

ID	Issue on which RWE seek agreement	Date	National Highways	Lincolnshire County Council	East Riding County Council (Environment al Control)	Notes
1	Does the ETG agree with the approach to characterising the baseline	10/09/2021	Yes	Yes	Yes	
2	Does the ETG agree that all necessary data sources have been considered when characterising the baseline?	10/09/2021	Yes	Yes	Yes	
3	Does the ETG agree with the approach to data collection?	10/09/2021	Yes	Yes	Yes	
4	Does the ETG agree with the impacts scoped in for further assessment?	10/09/2021	Yes	Yes	Yes	
5	Does the ETG agree with the approach to Ecological Impact Assessment?	10/09/2021	Yes	Yes	Yes	
6	Does the ETG agree with the approach to considering constraints for site selection?	10/09/2021	Yes	Yes	Yes	

#### **MEETING MINUTES**

Title of Meeting Dogger Bank South Onshore Ecology and Ornithology	
	Expert Topic Group – Pre-Scoping
Date	14 <sup>th</sup> September 2021
Time	10.00 – 12.00
Location	Online – Microsoft Teams
Document Reference	PC2340-RHD-ON-ZZ-MI-Z-0003
Number	

Attendees	Initials	Role and Organisation
	AB	Onshore Consent Lead, RWE
	VR	Onshore Consent Manager, RWE
	РВ	HRA Manager, RWE
	CS	Onshore Lead, Royal HaskoningDHV
	CC	Ecology Lead, Royal HaskoningDHV
	JF	Onshore Support, Royal HaskoningDHV
	EJ	Marine Lead Advisor, Yorkshire and North Lincolnshire,
		Natural England
	EB	Marine Senior Advisor and Senior Responsible Office
		for Dogger Bank South, Natural England
	RJ	Biodiversity Technical Specialist, North East Yorkshire,
_		Environment Agency
	AD	Head of Case Work Team, RSPB
	MD	Head of Conservation, Durham Wildlife Trust
	LH	Planning and Conservation Officer, Yorkshire Wildlife
		Trust
	TMH	Senior Ecologist, Durham County Council
	VG	Senior Biodiversity Officer, East Riding of Yorkshire
		Council

Number	Details	Action
1.	Welcome and introductions	None
	EB – highlighted that there may be a change in personnel for Natural England as grid connection and landfall location are confirmed. Also highlighted a resource constraint at Natural England for onshore support.	
	AD – attending at a high level to understand potential locations and confirmed the specific area teams will be brought in to the ETG when more information is available.	



	LH – confirmed the national Wildlife Trust will deal with offshore issues and the local Wildlife Trusts will deal with onshore were relevant.	
2.	Dogger Bank South offshore wind farm  AB – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements.  CS – overview of the current status of the projects. The Scoping Report is currently being drafted and The Crown Estate Plan Level HRA assessment is ongoing.  CS – Onshore grid connection – The location of the National Grid substation is currently unknown, it is due to be announced by National Grid early 2022. There are currently three broad search areas being considered – Hawthorn Pit, Creyke Beck and South of Humber.	None
	CS – Indicative programme – Key dates include Scoping Report submission in November 2021, PEIR submission January 2023 and DCO Submission November 2023.	
3.	The Evidence Plan Process (EPP)  CS – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, discussed documents to be produced  CS – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required.	None
4.	Scoping Report & Approach to EIA  CS – Approach to scoping – use of the three broad onshore search areas. Due to the size of the areas it is has not been possible to scope out any issues at this stage  CS – Scoping programme – Scoping Opinion due 24 <sup>th</sup> December 2021. After the Scoping Opinion is received there will be another ETG meeting to discuss that opinion.  EB – Question of whether an additional informal scoping process has been considered to refine the scope of the EIA once the grid connection point is confirmed and the site selection has progressed. An additional ETG meeting (once the final option is agreed) was also proposed, this meeting could also be used to scope out impacts based on the final options location.	
	ACTION – RWE/RHDHV to review proposed ETG schedule and add in an additional meeting as suggested	AB/VR/JF



CC – Existing Environment – Existing environment determined for each onshore search area using desk-based methods which considered European designated sites, UK designated sites, UK Habitats of Principal Importance and Protected and Notable species.

VG/LH – Question on the consideration of Local Wildlife Sites. CC confirmed these will be considered at the PEIR stage, which will include collecting data from the biological record centres (which includes information on LNRs).

CC – Existing Environment – Scoping Report identifies the number of designated sites, habitats (based on information from MAGIC.gov.uk) and protected, notable and non-native species for each onshore search area.

MD – Question on why rocky shore is not included in the habitat section.

**Action** - CC to include rocky shore for the local Northumbria Coast SPA in the Scoping Report

CC/CS – Proposed Data Collection – Wintering bird surveys commence October/November 2021 and will look to cover all suitable habitat/areas afforded protection under designated site citations for overwintering birds in the three onshore search areas. Extended Phase 1 Habitat Surveys in 2022 to cover the final option for cable corridor, landfall and onshore substation plus 50m buffer, this will inform Phase 2 species specific surveys.

TMH – Question on if the wintering bird surveys pick up high tide roost areas and other functionally linked land in relation to SPA and Ramsar sites. CS confirmed they will but overwintering bird surveys in 2021/22 will only take place on publicly accessible land. CS also confirmed that the survey effort will be a combination of transects and vantage point surveys.

TMH – Question on if the wintering bird surveys will cover nocturnal surveys too. CS confirmed that the current plan is only to survey in the daytime but there is the opportunity to refine/alter the survey as data is collected. TMH confirmed that along the Durham coast it is already known that due to disturbance birds may use the sites outside 'normal' hours. CS noted this detail for future consideration.

CC



LH – Question on commitments to Biodiversity Net Gain and if so, would it be more appropriate to use UK Habitat classification over Phase 1 Habitat Survey habitat codes. CS confirmed Net Gain opportunities are being considered by the project but at this early stage it is not possible to confirm what they are. CS also confirmed that the recording mechanism used during data collection will allow both UK Habitat classification and Phase 1 habitat codes to be used in the field.

**ACTION** Biodiversity Net Gain – if there are any opportunities within respective areas/organisations regarding net gain please share them with the project as early as possible.

VG – Question regarding timing of Phase 2 surveys and if it will be possible to complete these for all three onshore search areas. CC/CS confirmed Phase 2 surveys will take place on the selected final option and not across all three onshore search areas.

CS – Question to Natural England regarding the requirement for one or two years' worth of data for overwintering birds.
EB – Two years' worth of data would normally be required unless specific justification can be given. Given that the 2021/22 survey will only take place on publicly accessible land Natural England will be expecting a second year of data. Agreed the ETG can discuss this in further meetings.

VG – As there are no Dormice in the East Riding they can be scoped out. CC confirmed that while it is unlikely that they are present within the Creyke Beck or South of Humber area a Phase 1 survey will consider all protected species for completeness, if no suitable habitat is found there will be no targeted species-specific surveys.

CS – Question to Natural England regarding the GCN survey effort (using 250m buffer and eDNA methodology) with the view to a Letter of No Impediment. EB explained that this is not her area of expertise but that previously Natural England have seen it as important to consider suitable habitat that extends around the survey buffer. **Action** – EB to take this point away and check within Natural England.

CC – Potential Impacts – all impacts scoped in at the moment

ΑII

ΕB



	TMH – Question on if the haul roads are likely to lead to an increase in recreational disturbance. AB confirmed all haul roads would be secured during construction and then restored and returned to the landowners once no longer required. Recreational access will not be permitted on construction haul roads.  CC – Approach to Ecological Impact Assessment – EcIA will be undertaken in line with CIEEM guidance (2018).	
5.	Site selection methodology  CS – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection.  RJ – Noted that recent mapping on INNS has been carried out in the area and asked whether INNS be considered during site selection. CS confirms a data request to the Environment Agency will include a request for the latest INNS data. Action – CS to confirm this will be taken into account during site selection.  CS – Key dates for the site selection process. Confirmation of grid connection location by National Grid is expected in March 2022. Design refinements will continue up to DCO submission in March 2023.	CS
6.	AoB  VG – Question on how coastal erosion will be considered. JF confirms there is will be a Marine Physical Processes ETG where this will be covered. Action – Jeremy Pickles and Richard Jackson (East Riding of Yorkshire Council) to be added to this ETG, along with Natural England.  RJ – Question on collaboration with Hornsea FOUR. AB confirms it is not possible to collaborate with this project at this time.	JF



# **Agreement / Disagreement Log**

ID	Issue on which RWE seek agreement	Date	Natural England	Environment Agency	RSPB	Durham Wildlife Trust	Yorkshire Wildlife Trust	Lincolnshire Wildlife Trust	Durham County Council	East Riding of Yorkshire	Lincolnshire County Council	East Lindsey District Council	Notes
1	Does the ETG agree with the approach to characterising the baseline	14/09/2021	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	N/A	N/A	
2	Does the ETG agree that all necessary data sources have been considered when characterising the baseline?	14/09/2021	Yes	Yes	Yes	Yes	See Notes	N/A	Yes	See Notes	N/A	N/A	YWT and ERYC would like LWS to be considered. Confirmed they will be part of the scope at PEIR.
3	Does the ETG agree with the approach to data collection?	14/09/2021	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	N/A	N/A	
4	Does the ETG agree with the impacts scoped in for further assessment?	14/09/2021	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	N/A	N/A	
5	Does the ETG agree with the approach to Ecological Impact Assessment?	14/09/2021	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	N/A	N/A	
6	Does the ETG agree with the approach to considering constraints for site selection?	14/09/2021	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	N/A	N/A	

Registered office:



#### **MEETING MINUTES**

Title of Meeting	Dogger Bank South Historic Environment Expert Topic				
	Group – Pre-Scoping				
Date	15 <sup>th</sup> September 2021				
Time	13.30 – 15.30				
Location	Online – Microsoft Teams				
Document Reference	PC2340-RHD-ZZ-ZZ-MI-Z-0004				
Number					

Attendees:	Initials	Role and Organisation				
	AB	Onshore Consent Lead, RWE				
	PC	Offshore Consent Lead, RWE				
	VR	Onshore Consent Manager, RWE				
	DB	Offshore Consent Manager, RWE				
	AM	Land Transaction Manager, RWE				
	AM	Offshore Consent Manager, RWE				
	HC	Offshore Lead, Royal HaskoningDHV				
	JF	Onshore Support, Royal HaskoningDHV				
	VC	Senior Marine Heritage Consultant, Royal				
		HaskoningDHV				
	GS	Heritage Consultant, Royal HaskoningDHV				
	СР	Head of Marine Planning, Historic England				
	SD	Principal Conservation Officer, East Riding				
		of Yorkshire Council				
	MA	Historic Environment Advisor, Lincolnshire				
		County Council				
	EW	Historic Environment Officer, East Lindsey				
		District Council				

Number	Details	Action
1.	Welcome and introductions	
	All attendees introduced themselves and their role in relation to the projects	
2.	Dogger Bank South offshore wind farm	





PC – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements was provided.

CP – Question on the transmission technology given how far offshore the wind farm areas are. PC – engineering work is ongoing and there is not currently an answer on this point. HC for the purposes of Scoping both HVAC and HVDC technologies are being considered.

HC – overview of the current status of the projects. The Scoping Report is currently being drafted and The Crown Estate Plan Level HRA assessment is ongoing.

HC – Onshore grid connection – The location of the National Grid substation is currently unknown, it is due to be announced by National Grid early 2022. There are currently three broad search areas being considered – Hawthorn Pit, Creyke Beck and South of Humber.

SD – Question on whether there will be one grid connection for both projects or might there be multiple grid connections. PC/HC – at the moment National Grid have not confirmed, the working assumption is one connection for both projects but this is not confirmed or guaranteed by National Grid.

SD – Question on the possibility of sharing cable routes, specifically with Hornsea FOUR. HC/PC – The differing time scales for projects restricts the ability to do this, for example Hornsea FOUR is much further along the consenting process. The OTNR process is currently ongoing and the project awaits to hear the outcome of the review. Under the current system it is difficult for projects to share infrastructure.

HC – Indicative programme – Key dates include Scoping Report submission in November 2021, PEIR submission January 2023 and DCO Submission November 2023.

CP – Question on the present programme of primary data acquisition. HC – the survey programme is currently being drafted but from an offshore perspective geophysical surveys are likely to be in 2022.

3. The Evidence Plan Process (EPP)



HC – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, discussed documents to be produced was provided.

**ACTION** – If any attendees have not received a copy of the EPP Terms of Reference please contact the project team and they will issue them.

All

HC – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required.

CP – Question on whether the latest version of the Terms of References includes likely dates for upcoming meetings, this will help when negotiating the enhanced advisory service agreement.

**Action** – re-issue an updated Terms of Reference to include a gantt chart of proposed dates.

JF/HC

CP – Question on whether there is an Overarching Steering Group for the project. HC – nothing formal has been set up to date, but RWE are open to setting one up. The project are looking for feedback from stakeholders to see if this is something they think would be useful.

#### 4. Scoping Report & Approach to EIA – Offshore

HC – Approach to scoping – use of the three broad onshore search areas and one large offshore area. Due to the size of the areas it is has not been possible to scope out any issues at this stage.

HC – Scoping programme – Scoping Opinion anticipated 24<sup>th</sup> December 2021. After the Scoping Opinion is received there will be another ETG meeting to discuss it.

VC – Existing Environment – Due to the size of the offshore study area the current baseline is very high level. The offshore study area is in an area of high archaeological potential (pre-historic). There are also three nationally important wrecks, but these will be avoided by the final routing of the offshore export cable. Remains of coastal defences related to WWI and WWII are likely to be present within the intertidal zone.



SD – The high level of coastal erosion has led to a number of 'lost villages' particularly south of Hornsea, which should be considered. The area under consideration has been subject to a research study by Humber Archaeology/Historic England to map wrecks and underwater features, the information would be pertinent to this work.

**Action** – VC to follow up and add these sources to the Scoping Report.

VC

MA – There are also submerged settlements off the Lincolnshire Coast and submerged forest between Ingoldmells and Cleethorpes. Catlin Green's work would be a useful source to look at.

VC

**Action** - VC to follow up and add sources to the Scoping Report. MA confirmed the Lincolnshire HER is unlikely to contain all the details of lost villages.

CP – Question on survey work in 2022 and how geophysical and geotechnical work will be undertaken over such a large area. VC confirmed, given the size of the current search area, surveys are not possible from a data management and size of area point of view. Geophysical surveys will take place once the offshore cable corridor has been refined. The exact scope of the survey has not yet been decided but it is expected the full suite of survey techniques for offshore archaeology will be used. Geotechnical survey has not been ruled out but the when, what and how is yet to be determined.

CP – Question on historic seascape characterisation and how the changes that are occurring and likely to occur in the area will be taken into consideration. Historic England advocate an approach that defines and interprets changes to historic changes. VC confirms National Historic Seascape Characterisations will be used as the basis but with updates to take account of changes in the area.

SD – Note the Humber HER is not held by Hull City Council but Humber Archaeology Partnership (a joint body that covers East Riding and Hull).

**Action** – VC to update in the Scoping Report.

VC

**Action** – SD to provide VC with a contact at Humber Archaeology.

SD



VC – Approach to Data Collection – UKHO records of wrecks and obstructions, maritime records maintained by Historic England, NHLE, HERs, BGS, National Historic Seascape Characterisation and existing archaeological studies and published sources will be used to characterise the areas. N.B heritage assets onshore that might be affected by work offshore will be considered in the onshore chapter.

CP – Collaboration with other projects in the area is important, especially Sofia and the Dogger Bank projects. VC/PC – confirmed there is open communication between the projects to understand the area as a whole, Dogger Bank South will explore opportunities to integrate wider assessments across the Dogger Bank.

VC – Potential impacts – all potential impacts are currently scoped in, nothing has been scoped out at this time.

VC – Approach to impact assessment – The assessment will be based on geophysical survey data, desk-based assessment and geotechnical data. Standard methodology will be followed.

CP – The Crown Estate has recently re-published the Guide to Written Schemes of Investigation for Offshore Wind. VC – the project is aware and will take this into account.

CP – Question on how the process of refining anomalies will be undertaken. VC – The team will work with archaeological subcontractors (yet to be appointed) to work out the most effective process to address this issue.

#### 5. <u>Scoping Report & Approach to EIA – Onshore</u>

GS – Existing environment – similar to offshore the onshore study areas are large and therefore the approach to characterising the existing environment for scoping has been very high level. This has included looking at designated assets and general characterisation reports of the areas.

MA – Confirmed for South of Humber there are Palaeolithic and Mesolithic sites in the area.

SD – Noted non-designated sites have not been included due to the size of the areas, however, it is important to remember that most of the archaeological assets will be non-designated or even recorded. GS – The relevant HERs will be collected once the route is refined to consider these assets.



GS – Approach to data collection – BSG, NHLE, HERs, records maintained by Historic England, Heritage Conservation Areas, walkover surveys, ZTV, existing archaeological studies and published sources and other local records offices will be used to characterise the areas.

GS/VC – Proposed baseline surveys – a staged approach will be used. This will take the form of targeted walkover surveys and setting assessments which would inform the priority geophysical survey, which would in turn inform the intrusive ground works watching briefs, geotechnical work, trail trenching etc. Programming at the moment is difficult due to the unknown elements of the project. The plan is to maintain the conversation with stakeholders to develop the approach to surveys.

MA – Strong recommendation that intrusive evaluation is undertaken prior to the submission of the DCO. GS/VC – The aim would be to undertake trial trenching pre-submission, but this would depend of landowner consent, crop cover, weather conditions and contractor availability. On previous projects it has been recommended that archaeological investigations continue after submission and during examination, which could be an approach used on this project. Consultation will be ongoing with stakeholders regarding the approach to surveys.

GS – Potential impacts – all impacts scoped in, except for direct physical impacts to designated and non-designated heritage assets during operation as the aim is that these impacts will have been mitigated for during the construction stage.

SD – Question on whether the above ground infrastructure onshore will only be at landfall and substation (and access chambers along the route) . AB – confirmed that all cables will be buried.

MA – Question on project life span. PC – working assumption is 30 years but the lease from The Crown Estate will be 60 years so could allow for two cycles in terms of lifespan. MA – Question on whether all of the infrastructure will be removed as part of the decommissioning at the end of the life span? PC – confirms this is to be further investigated as the projects develop.



GS – Approach to impact assessment – all designated heritage assets within 3km of the substation and all designated heritage sites within 1km of the project boundary will be assessed. Known non-designated assets and potential buried archaeological remains within 500m of the onshore application boundary will also be assessed. The EIA will be undertaken with reference to and / or in accordance with a variety of primary legislation, policy, standards and guidance.	
MA – 1km vs 500m buffer is preferred for buried archaeology but could accept 500m, this will depend on final locations. For example, an initial 1km search area on the onshore cable route could be undertaken before refining to 500m depending on what is identified in the wider area.	MA
MA – The Handbook for Archaeology and Heritage in Lincolnshire is available.	
Action – MA to forward GS a copy.	
MA – highlighted that as much information as early as possible is the key to success. In Lincolnshire there is a lot of fen land where geophysical methods are not always the most appropriate, therefore a bespoke method might be required.	
Site selection methodology  HC – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection.	

6.

CP – Question on how much of a bearing does the decommissioning of oil and gas infrastructure have on the project. HC – programme should not be impacted and there will be consultation with oil and gas operators to avoid crossings.

SD – Onshore broadband cabling and aviation fuel pipelines should be considered.

**Action** – HC to check that these are being considered.

MA – In Lincolnshire the Viking Link and Immingham oil and gas infrastructure need to be considered. HC – confirmed these are being considered

SD – Mineral protection zones should also be considered.

**Action** – HC to check that these are being considered.

HC

HC



	HC – Key dates for the site selection process. Confirmation of grid connection location by National Grid is expected in March 2022. Design refinements will continue up to DCO submission in March 2023.	
7.	AoB  CP — Question regarding who to write to regarding the EAS process. HC — confirmed to write to and  CP — Confirmed his role is national for offshore and he will coordinate teams in Midlands (Birmingham) and North East and Yorkshire (York and Newcastle) as required.	





# **Agreement / Disagreement Log**

ID	Issue on which RWE seek agreement	Date	Historic England	Durham County Council	East Riding of Yorkshire Council	Lincolnshire County Council	East Lindsey District Council	Notes
1	Does the ETG agree with the characterisation of the (offshore) existing environment?	15/09/2021	Yes	N/A	See notes	See notes	Yes	ERYC and LCC agree as long as the information on lost villages and submerged forests are included.
2	Does the ETG agree with the approach to desk-based data collection (offshore)?	15/09/2021	Yes	N/A	Yes	Yes	Yes	
3	Does the ETG agree with the impacts scoped in for offshore archaeology?	15/09/2021	Yes	N/A	Yes	Yes	Yes	
4	Does the ETG agree with the approach to EIA for offshore archaeology?	15/09/2021	Yes	N/A	Yes	Yes	Yes	
5	Does the ETG agree with the approach to desk-based data collection (onshore)?	15/09/2021	Yes	N/A	Yes	Yes	Yes	
6	Does the ETG agree with the approach to onshore surveys?	15/09/2021	Yes	N/A	Yes	See notes	Yes	LCC would recommend intrusive surveys are undertaken pre-submission. However, accepted the staged methodology.
7	Does the ETG agree with the impacts scoped in for onshore archaeology?	15/09/2021	Yes	N/A	Yes	Yes	Yes	



ID	Issue on which RWE seek agreement	Date	Historic England	Durham County Council	East Riding of Yorkshire Council	Lincolnshire County Council	East Lindsey District Council	Notes
8	Does the ETG agree with the approach to EIA for onshore archaeology?	15/09/2021	Yes	N/A	Yes	Yes	Yes	
9	Does the ETG agree with the approach to considering offshore constraints for site selection?	15/09/2021	Yes	N/A	Yes	Yes	Yes	
10	Does the ETG agree with the approach to considering offshore constraints for site selection?	15/09/2021	Yes	N/A	Yes	Yes	Yes	



RWE Renewables UK Limited, Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, SN5 6PB

# **Risk Register**

RAG Status Description	RAG
Stakeholder(s) considers that unless these issues are resolved it will have to advise that the project	
is not consented	
Stakeholder(s) and Applicant considers that these issues have potential to be resolved. Should this	
not be possible they may become Red issues.	
While there is disagreement between the Stakeholder(s) and Applicant the stakeholder considers	
that they are matters which are not sufficient to object to the consenting of the project.	

ID	Description of Issues Identified in Agreement/ Disagreement Log	RAG Status	Actions
4.1	Lincolnshire County Council has advised intrusive investigations should take place before the submission of the application. The project may not be able to accommodate this within the current programme.		Applicant to continue to engage with Lincolnshire County Council as the survey scope is developed.





# **MEETING MINUTES**

Title of Meeting	Dogger Bank South Historic Environment Expert Topic
	Group – Pre-Scoping
Date	15 <sup>th</sup> September 2021
Time	13.30 – 15.30
Location	Online – Microsoft Teams
Document Reference	PC2340-RHD-ON-ZZ-MI-Z-0012
Number	

Attendees:	Initials	Role and Organisation
	AB	Onshore Consent Lead, RWE
	VR	Onshore Consent Manager, RWE
	DB	Offshore Consent Manager, RWE
	HC	Offshore Lead, Royal HaskoningDHV
	JF	Onshore Support, Royal HaskoningDHV
	CC	Offshore Support Royal HaskoningDHV
	СТ	Principal Planning Officer, Durham County Council
	BW	Senior Drainage Engineer, Durham County Council
	DM	Principal Archaeologist, Durham County Council
	GL	Senior Landscape Officer, Durham County Council
	ТВ	Assistant Design and Conservation Officer, Durham County Council
	PH	Highway Development Manager, Durham County Council
	KD	Seascapes Partnership, Durham County Council
	CS	Senior Planning Officer, Durham County Council
	TS	Ecologist, Hartlepool Borough Council

Number	Details	Action
1.	Welcome and introductions	
	Attendees introduced themselves and their role in relation to the Projects.	



CT explained that there are four planning teams within Durham County Council, three are area based and then there is the Strategic Planning team which will deal with these Projects.

N.B. Due to an error with the Outlook meeting invite not all attendees were present at the start of the meeting and introduced themselves as they arrived.

**ACTION** –re-issue the slide pack used in the presentation to all attendees so those who arrived after the start of the presentation can catch-up.

JF

## 2. <u>Dogger Bank South offshore wind farms</u>

AB – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South (DBS) East and DBS West projects and a summary of the likely infrastructure requirements was provided.

AB – overview of the current status of the Projects. The Scoping Report was submitted to the Planning Inspectorate on 8<sup>th</sup> November and The Crown Estate Plan Level HRA assessment is ongoing.

AB – Onshore grid connection – The location of the National Grid substation is currently unknown, it is due to be announced by National Grid early 2022. There are currently three broad search areas being considered – Hawthorn Pit, Creyke Beck and South of Humber. As there are two projects (DBS East and DBS West), two grid connection points are required and there is a possibility these could be in separate locations.

CT – asked whether search areas will drop out and not be included in the application once the National Grid decision is confirmed. This is correct once National Grid have confirmed the location of the substation/substations, areas of search will be dropped. Note this decision is in the hands of National Grid not RWE.

CT- Question on how environmental assessment are being considered in the decision making process for the National Grid connection location. The decision on grid connection location sits with National Grid therefore the Projects cannot feed in environmental information at this stage.

AB – Indicative programme – Key dates include submission of Scoping Report (8<sup>th</sup> November), PEIR submission January 2023 and DCO Submission November 2023.



# 3. <u>The Evidence Plan Process (EPP)</u>

HC – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, discussed documents to be produced was provided.

**ACTION** – Provide copy of the Terms of Reference to all attendees when issuing the minutes.

JF

CT – Question on who from Durham County Council has attended ETG meetings so far. JF confirmed Tammy Hale-Morris attended the Ecology meeting and meeting minutes from all other relevant meetings have been forwarded to planning@durham.gov.uk

СТ

**ACTION** – Confirm if Durham County Council would like to be to be issued with any minutes from previous ETG meetings

JF

**ACTION** – update project records to show CT/CS are the main contacts for Durham County Council rather than the generic planning email address.

HC – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required.

CT – Question on what is considered in Scoping in terms of the three onshore scoping area. The Scoping Report does cover all three options at this stage.

CT – note that the grid connection location may not be in the most suitable location in terms of environmental considerations given the decision is in the hands of National Grid. Confirmed that while the grid connection location is in the hands of National Grid, once the location is confirmed the site selection process for the rest of the onshore infrastructure for the Projects will take in to account a range of environmental considerations.

VR – Statement of Community Consultation is currently being worked on and the Projects will be in touch with the councils soon regarding this.

# 4. Scoping Report & Approach to EIA – Offshore

HC – Approach to scoping – use of the three broad onshore search areas and one large offshore area. Due to the size of the areas it is has not been possible to scope out many issues at this stage.

RWE

HC – Scoping programme – Scoping Opinion anticipated around 20<sup>th</sup> December 2021. CT confirmed the Planning Inspectorate has requested responses from consultees by 8<sup>th</sup> December. After the Scoping Opinion is received there will be another set of ETG meetings to discuss it if necessary.

HC – Scoping Report Consultation – the Scoping Report includes a number of prompts for consultees asking them to consider how the existing environment has been characterised, the approach to data collection, the potential impacts highlighted, what has been scoped in/out of further assessment and the approach to further assessment.

HC – Onshore Ecology – for scoping a desk-based assessment of the three onshore study areas has been undertaken and all potential impacts are scoped in at this stage. Over-wintering bird surveys started in October for all three possible areas and a set of Extended Phase 1 Habitat Surveys and target species surveys are planned for next year when the cable route(s) have been refined. Biodiversity Net Gain is being considered by the Projects and plans will be developed as the Projects progress.

TS – Question on the methodology for wintering bird surveys. A number of transects and vantage points have been identified in each search area which the Project Ecologist believe have potential to support overwintering birds. This was done using existing aerial imagery. Also note that this round of surveys are all being undertaken from publicly accessible land and there is currently no agreement with land owners to cross privately owned land.

HC – Water Resources – the existing environment has been characterised using freely available data from the Environment Agency. The majority of potential impacts are scoped in at this stage, apart from direct disturbance of surface water bodies during operation. For the future assessments additional data sets will be obtained from the Environment Agency, Natural England and Lead Local Flood Authorities and a baseline geomorphology survey would be undertaken at crossings of main rivers or other sensitive water courses.



HC – Onshore Heritage – Data sets used for the Scoping Report include Scheduled Monuments, Listed Buildings, Registered Parks and Gardens and Conservations Areas. At this stage the majority of potential impacts are scoped in, with the exception of direct, physical, impacts to designated and non-designated heritage assets during operation. For the impact assessment additional data will be collected, including from the HERs. There will also be a programme of baseline heritage surveys undertaken when the Projects have been refined.

CT – Question on how much of the current onshore areas will be required for the Projects. Each onshore cable route will be approximately 70m wide. The current search areas are large to give flexibility in the site selection process to avoid key constraints.

HC – Air Quality – the existing environment has been characterised using Air Quality Monitoring Areas on annual reports from local authorities and government. At this stage potential construction and decommissioning impacts have been scoped out. Potential operational impacts have been scoped out as there will be limited vehicle movements during operation. The assessment will use data collected by local authorities and Defra, no project specific surveys are proposed at this stage.

CT – note that could not attend the meeting and would normally comment on Air Quality.

**ACTION** – confirm if any additional information needs to be sent to

HC – Onshore Noise and Vibration – the existing environment has been characterised using aerial imagery, local authority plans, LiDAR data and OS vector mapping. Potential construction and decommissioning impacts have all been scoped in. During operation the onshore substation is the only element of the Projects which could create noise therefore noise affecting human and ecological receptors has been scoped in, other impacts relating to vibration (associated with construction activities) and traffic movements have been scoped out for the operational phase. Baseline noise surveys will be undertaken to support the assessment.

СТ



HC – Seascape, Landscape and Visual Impacts – as the turbines will be over 70km from shore (minimum of 100km from closest point at Flamborough Head) they will not be visible from shore and have therefore been scoped out of further assessment. The LVIA scoping has been informed by a range of sources including National Character Areas, county/district landscape character assessments and relevant landscape planning policies. Potential impacts during construction have been scoped in, during operational phase impacts resulting from the onshore substation have been scoped in, impacts in relation to underground cabling have been scoped out. Decommissioning impacts have been scoped out of the LVIA. Zones of Theoretical Visibility will be created to inform the assessment of impacts. HC – Traffic and Transport – DfT data, online mapping and Sustrans data has been used to characterise the existing environment. 2019 traffic data has been used to reflect the traffic conditions pre-COVID as 2020 data will likely have been affected by lockdowns. Potential construction and decommissioning impacts have generally been scoped in, with the exception of hazardous loads which are unlikely to be required and have therefore been scoped out. Potential operational impacts have been scoped out as maintenance traffic will be minimal compared to normal traffic flows. Note noise and air quality impacts linked to traffic will be considered in their decreet chapters. Baseline traffic flow data will be collected, along with collision data and existing pedestrian/cycle/bus routes. The assumption is 2021 data will be illustrative of post-COVID conditions. PH – Question on the Projects approach to consultation with National Highways. Confirmed that National Highways attended the first traffic ETG meeting. Site selection methodology HC – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. An overview of the constraints being considered during site selection was presented.



5.

# 6. <u>Summary/AoB</u>

CT – Summary – turbines are located off the Flamborough coast but there are three areas of search along the east coast, one covering part of Country Durham (and small parts of Hartlepool and Sunderland). One/Two of these search areas will end up housing the onshore substation, but this decision is with National Grid. Therefore, the Scoping Report that has recently been submitted considered all three areas of search.



# **MEETING MINUTES**

Title of Meeting	Dogger Bank South Water Resources Expert Topic Group
	– Pre-Scoping
Date	17 <sup>th</sup> September 2021
Time	10.00 – 12.00
Location	Online – Microsoft Teams
<b>Document Reference</b>	PC2340-RHD-ON-ZZ-MI-Z-0007
Number	

Attendees:	Initials	Role and Organisation			
	AB	Onshore Consent Lead, RWE			
	VR	Onshore Consent Manager, RWE			
	CS	Onshore Lead, Royal HaskoningDHV			
	JF	Onshore Support, Royal HaskoningDHV			
	ID	Water Resources Lead, Royal HaskoningDHV			
	LG	Planning specialist, Environment Agency (Environment Agency Lead Contact)			
	АР	Planning and Permitting Advisor (East Yorkshire), Environment Agency			
	JA	Planning and Permitting Officer (East Riding), Environment Agency			
	СВ	Humber Strategy, Environment Agency			
	GF	Representing Lead Local Flood Authority, East Riding of Yorkshire Council			
	LP	Yorkshire and Humber Drainage Board			
	JC	Beverley & North Holderness Internal Drainage Board			

Agenda		Initials
1.	Welcome and introductions All attendees introduced themselves and their role in relation to the projects. LG confirmed she is the main contact for the Environment Agency and will coordinate their response.	None



2.	Dogger Bank South offshore wind farm  AB – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements.  CS – overview of the current status of the projects. The Scoping Report is currently being drafted and The Crown Estate Plan Level HRA assessment is ongoing.  CS – Onshore grid connection – The location of the National Grid substation is currently unknown, it is due to be announced by National Grid early 2022. There are currently three broad search	None
	areas being considered – Hawthorn Pit, Creyke Beck and South of Humber.  AP – Question on if there is a preference for one of the three options. CS confirmed that this decision is in the hands of National Grid as part of the OTNR process therefore the projects	
	are currently giving equally consideration to all three options.  GF – Question of if the Cryeke Beck area is selected, will the project use the same route as Hornsea 4. CS confirmed that this is a possibility, but it is not the only routing option being considered.	
	CS – Indicative programme – Key dates include Scoping Report submission in November 2021, PEIR submission January 2023 and DCO Submission November 2023.	
3.	The Evidence Plan Process (EPP)  CS – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, discussed documents to be produced.  CS – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required.	None
4.	Scoping Report and Approach to EIA CS – Approach to scoping – use of the three broad onshore search areas. Due to the size of the areas it is has not been possible to scope out any issues at this stage CS – Scoping programme – Estimated date for request for Scoping Opinion to be submitted 19 <sup>th</sup> November. Scoping Opinion anticipated 24 <sup>th</sup> December 2021. After the Scoping Opinion is received there will be a further ETG meeting to discuss it.	



ID – Existing Environment – The Scoping Report includes a deskbased assessment, to date there have been no field surveys. Existing data sets (EA Catchment Data Explorer, EA flood risk mapping, EA surface water flood risk mapping & aquifer designations and groundwater vulnerability) have been used to characterise the existing environment under four categories: surfaces waters, groundwaters, WFD waterbodies and flood risk. AP – Highlighted the need to consider East Riding of Yorkshire Strategic Flood Risk Assessment, future flood risk modelling (EA flood risk map only shows current flow risk), and the Shoreline Management Plan for coastal flooding issues. ID confirms the SFRA has already been considered and that he will investigate the other sources for inclusion in Scoping. ID noted that it is understood that all these sources will need to be considered as the projects progress beyond scoping and into the PEIR and ES stages.

**Action** – ID to look at including additional sources in the Scoping Report.

GF – Question on whether Source Protection Zones (SPZ) have been considered. ID confirms they have been used.

ID – Existing environment Hawthorn Pit – Surface waters mainly drain into the North Sea, relatively small watercourses (no main rivers). Large proportion of the area is covered by SPZ III and SPZ I and II are also present across the area. WFD status mainly moderate to poor, main pressures on WFD status are pollution from urbanisation, and nutrients from diffuse agricultural pollution and discharges from the water industry (e.g. treated sewage effluent). Flood zones 2 and 3 limited to small areas of river valleys and coastal areas.

ID – Existing environment Creyke Beck – Most catchments drain inland into the River Hull system. Headwaters of the River Hull form a SSSI and parts of the river catchment have chalk river characteristics. Large SPZ I is located in the south west of the area, SPZ II and III also present. Most waterbodies have a moderate WFD status, main pressures on WFD status are physical modifications and diffuse pollution (nutrients) from the water industry and agriculture. Flood zones 2 and 3 are extensive in the river floodplain and coastal areas, particularly adjacent to the Humber Estuary.

ID



ID – Existing environment South of Humber – Multiple main rivers that drain mainly eastwards into the North Sea. A number of rivers are chalk streams. Current mapping does not show any SPZs in the area but this may be a problem with the data. WFD status mainly moderate to poor, main pressures on WFD status are physical modifications, diffuse pollution and signal crayfish). Enhanced flood risk extensive along low lying area to the north of the Humber and up the River Hull 'valley'. Large proportion of study area in an area of increased flood risk, reflecting low lying nature of the land.

LG – To check SPZs in Lincolnshire on the EA internal system. Confirmed during meeting that SPZs are present in the search area. **Action** – LG to provide mapping and an EA contact from whom this data can be requested.

AP – Highlights the need to understand future flood risk not just rely on the flood zones (current flood risk). Areas that are currently flood zone 1 are known to be of future flood risk.

AP – Flood risk in East Riding is complex and the rivers often react in strange ways. ID – Confirms that it is understood that the rivers in Creyke Beck and South of Humber have a long history of physical modification which results in complex flow distribution, this is something that is well known by the projects and will be reflected in the reporting.

CB – Changing tidal impact in some of the areas will also need to be considered. ID – noted.

ID – Proposed data collection – a range of EA/Natural England/BSG/LLFA/IDB data will be used to undertake a full desk-based assessment. In addition, a targeted field survey will be undertaken to understand the geomorphological baseline conditions, specifically at crossings of main rivers or other sensitive watercourses.

ID – Potential impacts – The majority of impacts have been scoped in at this stage, including the direct disturbance of water bodies, the supply of sediment and other contaminants, and changes to flow patterns and flood risk. Cumulative effects will also be considered. The only impact scoped out is direct disturbance of surface water bodies during operation (as there will be no physical interaction with watercourses during operation).

AP – The impact on existing flood risk infrastructure will also need to be considered. ID – confirmed that this will be considered as part of the impact assessment.

LG (completed 17/09/21)



	AP – Question on where/how nearshore coastal process and coastal flood risk will be assessed. ID – coastal flood risk will be included in the Flood Risk Assessment (FRA). Action – ID/CS to discuss how coastal flood risk impacts will be presented in the Environmental Statement and which chapter the assessment will be presented in.  ID – Approach to impacts assessment – The impact assessment will focus on two groups of receptors, water resources and flood risk. The Environmental Statement will be supported by a FRA and WFD Compliance Assessment. The Water Resources chapter of the Environmental Statement will be closely linked with the Geology and Land Quality, Terrestrial Ecology and Onshore Archaeology and Cultural Heritage assessments. The WFD compliance assessment will also link to appropriate offshore chapters (e.g. Benthic and Intertidal Ecology, Fish and Shellfish Ecology, Marine Mammals, Marine Physical Environment, Marine Sediment and Water Quality).	ID/CS
5.	Site selection methodology  CS – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection.  GF – Question on whether the Humber Low Carbon Pipeline will be considered. CS – as this is a new project is it unlikely that the project will be able to consider this at the site selection stage (but all efforts will be made to cooperate with other	
	developments) but any NSIPs will be considered in the Cumulative Effects Assessment.  AP – Flood Risk Areas should be used instead of Flood Zones.  AP – Permitting (EA) and consenting (LLFA/IDB) requirements and local bylaws should be considered as they could impact what is possible at certain locations in and around watercourses. CS – Noted.	
6	CS – Key dates for the site selection process. Confirmation of grid connection location by National Grid is expected in March 2022. Design refinements will continue up to DCO submission in March 2023.	
6.	AOB AP – the EA is a landowner and you might need to engage with the EA Estates Team.	



AP – if the Creyke Beck/South of Humber areas are selected further engagement will be required to discuss the complex nature of flood risk.

AP – There has been update to NPPF and there is a significance update to the Planning Policy Guidance is expected soon, any future reports will need to incorporate any changes.

AP – Question on if Biodiversity Net Gain being considered. CS – confirmed this is being considered and will be covered by the Onshore Ecology ETG where the EA is represented.

**Action** - Biodiversity Net Gain — if there are any opportunities within respective areas/organisations regarding net gain please share them with the project as early as possible.

JA – River Hull SSSI restoration group could be a useful contact for Biodiversity Net Gain. Chair of the group is Richard Jenning who is already part of the Onshore Ecology ETG for the project.

JA – Notes that Greenlink Interconnector should be considered.

CS – The project is aware of the interconnectors planned of the area and will consider in the Cumulative Effects Assessment.

ΑII



ID	Issue on which RWE seek agreement	Date	Environment Agency	Durham County Council	East Riding of Yorkshire	Lincolnshire County Council	East Lindsey District Council	Beverley and North Holderness IDB	South Holderness IDB	Yorkshire and Humber IDB	Lindsey Marsh IDB	Notes
1	Does the ETG agree with the approach to characterising the baseline?	16/09/2021	Yes	N/A	Yes	N/A	N/A	Yes	N/A	Yes	N/A	
2	Does the ETG agree that all necessary data sources have been considered when characterising the baseline?	16/09/2021	See notes	N/A	Yes	N/A	N/A	Yes	N/A	Yes	N/A	EA agree as long as future flood risk models and coastal change (Shoreline Management Plans) are considered.
3	Does the ETG agree with the approach to data collection?	16/09/2021	Yes	N/A	Yes	N/A	N/A	Yes	N/A	Yes	N/A	
4	Does the ETG agree with the impacts scoped in for further assessment?	16/09/2021	Yes	N/A	Yes	N/A	N/A	Yes	N/A	Yes	N/A	
5	Does the ETG agree with the approach to impact assessment?	16/09/2021	Yes	N/A	Yes	N/A	N/A	Yes	N/A	Yes	N/A	
6	Does the ETG agree with the approach to considering constraints for site selection?	16/09/2021	Yes	N/A	Yes	N/A	N/A	Yes	N/A	Yes	N/A	EA – as long as flood risk areas are used instead of flood zone and permitting and consenting requirements are considered.

Registered office:

# **MEETING AGENDA**

Title of Meeting	Dogger Bank South Marine Mammal Ecology Expert Topic					
	Group – Pre-Scoping					
Date	17 <sup>th</sup> September 2021					
Time	10:00 – 12:00					
Location	Online – Microsoft Teams					
<b>Document Reference</b>	PC2340-RHD-OF-ZZ_MI-Z-0006					
Number						

Attendees:	Initials	Role and Organisation
	PC	Offshore Consent Lead, RWE
	DB	Offshore Consent Manager, RWE
	PB	HRA Manager, RWE
	AM	Offshore Consent Manager, RWE
	HC	Offshore Lead, Royal HaskoningDHV
	CC	Offshore Support, Royal HaskoningDHV
	AS	Senior Marine Mammal Consultant, Royal HaskoningDHV
	EB	Marine Senior Adviser, Natural England
	EJ	Marine Lead Adviser, Natural England
	CL	Senior Specialist Marine Mammals, Natural England
	RF	Lead Adviser, Natural England
	СР	Marine Planning Officer, The Wildlife Trusts
	КВ	Marine Licensing Case Officer, MMO
	JS	Marine Licensing Case Officer, MMO
	PS	Senior Case Manager, MMO

Number	Details	Action
1.	Welcome and introductions	
	All attendees introduced themselves and their role in relation to the projects. Run through of the agenda.	
2.	Dogger Bank South offshore wind farm	
	PC – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements was provided.	



HC – Current status of the project, draft scoping report anticipated to be submitted 12th November 2021. The Crown Estate Plan level HRA is currently ongoing and due to conclude in Spring 2022. The projects are located within the Southern North Sea SAC which is designated for harbour porpoise. Others protected sites for marine mammals will also need to be considered. However, at this stage we are presuming the use of a Site Integrity Plan will be appropriate mitigation for the plan level HRA and further discussions on the project level HRA will take place once this has completed. HC – Description of the current onshore grid connection options; Hawthorn Pit, Creyke Beck and South of Humber. Looking to have confirmation of landfall area in early 2022. HC – The potential landfall area of searches has informed the offshore scoping area. HC – Indicative programme: Currently looking for a single DCO application, aiming for November 2023. Construction dates are indicative, construction could start earliest 2026. CL – Is the project looking to submit a single DCO for both Dogger Bank South East and West? HC – Exact approach to be determined, but yes current thinking is one DCO application for both Dogger Bank South East and West. PC – Timeline hinges on completion of TCE Plan-Level HRA, indicative currently. 3. The Evidence Plan Process (EPP) HC – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, discussed documents to be produced was provided. HC – If you feel it would be beneficial to have a Steering Group meeting please let us know and this can be arranged. HC – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required. 4. Scoping Report & Approach to EIA – Offshore HC – Approach to scoping – use of the three broad onshore search areas and one large offshore area. Due to the size of the areas it is has not been possible to scope out any issues at this stage.



HC – Scoping programme – Scoping report published approximately 12<sup>tH</sup> November, Scoping Opinion due 24<sup>th</sup> December 2021 (potentially early January 2022). After the Scoping Opinion is received there will be another ETG meeting to discuss that opinion.

AS – Proposed data collection. Full assessment of baseline conditions during the EIA process that will be done alongside site specific aerial surveys which will inform the species that will be taken forward into further assessments. Undertaking monthly surveys of the site currently, started March 2021, run to February 2023. These have been designed based on a grid based method collection.

The results from the survey will be assessed alongside marine mammals known to occur within the wider area. These will be considered in the context of their management units for the populations.

The assessment will also take into account data recorded in previous surveys, including the boat based data collected from 2010 to 2012 and the aerial surveys that were run from 2009 – 2010. Any other data sources that we should use?

CL – No other data sources can think of, the original Dogger Bank survey data is from some years ago and therefore it should be used as context rather than to inform the assessments.

AS – Publicly available data sources will be used, most up to date versions will be used as available.

CL – Updated seal management units are currently being finalised so should be used once available.

AS – Existing Environment. Harbour porpoise most common, will consider other commonly sighted species. The assessments for the white-beaked dolphins and bottlenose dolphins will be representative of that functional hearing group and would ensure that mitigation measures will be in place for any other dolphin species that are not included in the assessments. Should any other species be considered?

CL – Agrees with the list.

AS – provided an overview of the potential impacts that will be scoped in for construction. No one objected to the potential impacts scoped in for construction.

AS – Described the operational impacts scoped in. Impacts will be similar to construction but lower magnitude due to the lack of piling impacts. Barrier effects from physical presence of the OWF and EMF effects has been scoped out, in line with other nearby projects. Are all attendees happy with scoped out topics?



CL – Happy with the scoped out topics. Are you planning on including UXO in the assessment?

AS and HC – Yes, will be included within the ES, however it won't be consented as part of the DCO and a separate ML would be applied for to cover the UXO clearance activities. CL agreed with this approach but keen to ensure that UXO impacts are included in the ES as well.

AS – Approach to EIA – Description of the EIA methodology and consultation through the assessment. Does the ETG agree with the approach to EIA?

CL – Agreed that this covers everything it needs to.

## 5. <u>Site selection methodology</u>

HC – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection. Any other site selection constraints or data to look at? None were raised.

PS – During site selection will the projects consider that the recent Dogger Bank A and B surveys did not find any UXO offshore?

HC – I don't think this will be taken into account particularly for site selection. The UXO clearance area is a very narrow corridor during post-consent and therefore does not necessarily suggest that no UXO will be found in the area for another project.

HC – BRAG assessment to be completed later this year, will keep stakeholders up to date.

# 7. <u>AOB/Next Steps</u>

HC – Any other questions.

EB – On the timescales, freeze on PEIR design potentially before grid connection finalised is this correct?

HC — This is likely to move as we find out more on the likely timescale for confirmation of the grid connection.

EB – The more firmed up the design is by PEIR the better, as then NE'S comments will be more detailed. Recommend getting as much detail in the PEIR as possible.

HC – PEIR pushed back so we can get as much info from surveys as possible and be in a position to get meaningful comments from NE and others.



EB — Have reviewed some PEIRs with incomplete data, which means you can only comment so far, therefore it is difficult to provide meaningful comments on key impacts. PEIR can drift to a box-ticking exercise, if a detailed PEIR submitted it will help the final application.

HC – Useful to note and will be taken on board.

PS – In relation to the SIP submission, are there be any sort of financial or commercial influences that would mean the SIP should be submitted early, rather than 6 months prior to construction?

PC – Will be looked at in more detail later in the process, discussions on this have not yet taken place.

PS – Intention of the SIP is to submit as close to construction as possible.

HC – Please contact the team if you have any other questions, minutes will be sent out soon. Thanks everyone for your time.



# **Agreement / Disagreement Log**

ID	Issue on which RWE seek agreement	Date				Notes
			Natural England	The Wildlife Trusts	MMO	
1	Does the ETG agree with the approach to data collection?	17/09/2021	Yes	Yes	Yes	
2	Does the ETG agree with the approach to data collection? Are there any other data sources that could be used?	17/09/2021	Yes	Yes	Yes	
3	Does the ETG agree with the list of most common species in the project area? Are there any additional sites/species that should be given special consideration?	17/09/2021	Yes	Yes	Yes	
4	Does the ETG agree with the impacts scoped in?	17/09/2021	Yes	Yes	Yes	
5	Does the ETG agree with the approach to EIA?	17/09/2021	Yes	Yes	Yes	
6	Does the ETG agree with the approach to considering constraints for site selection? Are there any additional data sources that should be used?	17/09/2021	Yes	Yes	Yes	



# **MEETING AGENDA**

Title of Meeting	Dogger Bank South Seascape and Landscape Visual
	Impact Assessment Expert Topic Group – Pre-Scoping
Date	23 <sup>rd</sup> September 2021
Time	13:30 – 15:30
Location	Online – Microsoft Teams
Document Reference	PC2340-RHD-ZZ-ZZ_MI-Z-0008
Number	

Attendees:	Initials	Role and Organisation
	AB	Onshore Consent Lead, RWE
	VR	Onshore Consent Manager, RWE
	PC	Offshore Consent Lead, RWE
	DB	Offshore Consent Manager, RWE
	AM	Land Manager, RWE
	AC	Consent Manager, RWE
	НС	Offshore Lead, Royal HaskoningDHV
	CC	Offshore Support, Royal HaskoningDHV
	PM	Landscape Lead, LUC
	EJ	Case Officer, Natural England
	GF	Durham County Council
	EA	Lincolnshire County Council
	NM	Lincolnshire County Council
	СР	Manager for Greater Lincolnshire Nature
		Partnership (The Wildlife Trusts)
	RJ	East Riding of Yorkshire Council

Number	Details	Action
1.	Welcome and introductions	
	All attendees introduced themselves and their role in relation to the projects. Run through of the agenda.	
2.	Dogger Bank South offshore wind farm	
	PC – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements was provided.	
	HC – Scoping report to be submitted approx. 12 <sup>th</sup> November. ETG meetings feeding into this process. TCE Plan Level HRA due to conclude Spring 2022.	

Registered office:

HC – Potential grid connections. Being considered as two projects under the 'Dogger Bank South' title. Three potential onshore grid connection search areas – Hawthorn Pit, Creyke Beck and South of Humber.

GF – Aware a proposed cable landing point just north of Seaham harbour on North Beach? For the Green cables coming down from Scotland.

HC – Yes the project is aware of this northerly point for a connection.

GF – Proposal was rejected by town council, they're looking at an option in the Hawthorn area, potential for DBS to make landfall at the same site.

EJ – With the two projects, is there potential for them to be given two landfall locations?

HC – Yes National Grid could ask for two separate landfalls, however from a project perspective and based on communications with National Grid this is not what the project wants. However, this cannot be guaranteed at this point in time.

HC – Offshore Study Area is currently broad, will be refined down when grid connection point and therefore landfall confirmed.

HC – Discussion of indicative programme. DCO application planned to be submitted in November 2023. Stakeholders will be engaged throughout the entirety of the EIA process.

## 3. The Evidence Plan Process (EPP)

HC – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs and documents to be produced was provided. If you have not received the initial EPP documentation let us know and we will issue out.

HC – If you feel it would be beneficial to have a Steering Group meeting please let us know and this can be arranged.

HC – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required.

# 4. <u>Scoping Report & Approach to EIA</u>

HC – Approach to scoping – use of the three broad onshore search areas and one large offshore area. Due to the size of the areas it has not been possible to scope out any issues at this stage.

Registered office:

HC – Scoping programme – Scoping report published approximately 12<sup>th</sup> November, Scoping Opinion due 24<sup>th</sup> December 2021 (potentially early January 2022). After the Scoping Opinion is received there will be another ETG meeting to discuss that opinion.

## Seascape

PM – Seascape baseline. Project approximately 100km to the closest point on the coast (Flamborough Head). Seascape currently includes other human activities such as offshore wind farms, offshore oil and gas platforms and shipping activity.

PM – No visible turbines from sea level at over 71.5km from the array areas. Unlikely for turbines to be visible anywhere from shore. Proposing to scope out offshore SLVIA impacts. Does the ETG agree that Seascape is scoped out?

EJ – Would like to take this back to the landscape specialists and make sure they are happy with this being scoped out. Previous discussions with them indicated it could be scoped out but will double check.

RJ – Similar in East Riding will double check with Andy Wainwright and confirm.

**Action** – EJ and RJ to confirm with their respective teams that they are happy with Seascape impacts being scoped out of further assessment.

### Landscape

PM – Initial list of data sources that will inform the LVIA. Does ETG agree with the approach to characterising the baseline? Are there any additional data sources that should be used?

RJ – Yorkshire Wolds currently in the process of being designated as an AONB. This will need to be taken into account if designated during the projects lifecycle.

PM – Yes we are aware of this, will keep track of its progress.

PM – Existing Environment. Discussion of the existing environment for the three search area.

PM – Potential impacts. Cumulative effects will depend on the landfall area chosen. Transboundary impacts to be scoped out.

NM – Study area is close to the coastline, will the cable go beyond the study area and how will this be taken into account?

PM – The extent of the cable that will be assessed in the LVIA will be from the offshore wind farm to the substation. Based on current discussions with National Grid we expect the grid connection point to be within the Area of Search identified for the South of Humber region.

NM – Triton Knoll cable extended into Lincolnshire, could this happen with this project?

EJ & RJ

HC – NG has said there will be a connection point within one of the search areas, therefore we are not expecting the cables to extend beyond these areas. However, this will be dependent on the grid connection point provided by National Grid, and if it alters the Onshore Area of Search for the projects would be updated accordingly.

PM - Does the ETG agree with the impacts scoped in?

GF – NG trying to increase size of substations in Seaham, initially rejected by town council. Is their desire to upgrade the substation anything to do with a potential link with this project?

HC – NG haven't been this specific with the project so far.

AB – Not aware of anything else.

GF – Two potential developments in Seaham, is the project aware that Hawthorn Pit is not on the coast and would need to route inland to reach the substation there?

HC – Yes we are. Once we have a confirmed grid connection point we will select a preferred landfall location and the associated onshore cable route through a site selection process. Engagement will occur with stakeholders on this.

PM – The route and site selection will influence the scope of the assessment, just trying to establish the principles at present.

RJ – Is the project aware of the Northern Endurance Carbon Capture and Storage pipeline from the Tees and the Humber Industrial Clusters, part of the route corridor potentially crosses the Humber so will likely intersect wit the study area. Why is decommissioning aspects scoped out?

HC – yes we are aware of that project and will consider their potential routes.

PM – Decommissioning not anticipated to require significant works as cables likely to be left in the ground onshore. Effects of substation being demolished would be considered to be the same as construction effects.

RJ – A lot of cables and pipelines coming in on the east coast, eventuality in future years of cables/pipelines that have not been removed being exposed due to coastal erosion.

HC – Coastal erosion will be a key part of the assessment. This will be discussed in next week's Seabed ETG which also cover coastal processes. When we have more detail on landfall the project will consider hosting another meeting to discuss this issue.

PM – Approach to impact assessment. Does ETG agree with the approach? Images are from the Hornsea 4 project and therefore examples of what might be produced. Key output of the LVIA will be any mitigation measures required, e.g. screening of site through woodland, use of colours and materials. Any further questions on the approach? None were raised. HC – Any further questions after the meeting please let us know. 5. Site selection methodology HC – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection. Any other site selection constraints or data to look at? None were raised. HC – Site selection short-list to be identified early next year. 7. **AOB/Next Steps** HC – Any further points? NM - In terms of constraints identified, politically from a Lincolnshire perspective there could be opposition to further offshore wind developments, which should be taken into account. Secondly, there has been no mention of community statements, at what stage would we plan to go to the local communities? HC - This is noted and useful to understand. Once a grid connection point is known, is when we are likely to issue statements of community consultation so can be tied to area that will be taken forward. Councils input into this will be important. HC – Appreciate all stakeholder inputs to the project, and thanked everyone for attending.

# **Agreement / Disagreement Log**

ID	Issue on which RWE seek agreement	Date	Natural England	Durham County Council	Lincolnshire County Council	East Riding Of Yorkshire Council	Notes
1	Does the ETG agree that Seascape is scoped out of the EIA.	24/09/2021	Yes*	Yes	Yes	N/A*	EJ and RJ double checking with their respective organisations on the scoping out of Seascape impacts from further assessment.
2	Does the ETG agree with the approach to characterising the baseline? Are there any additional data sources that should be used?	24/09/2021	Yes	Yes	Yes	Yes*	RJ indicated the potential Yorkshire Wolds AONB should be considered if fully designated.
4	Does the ETG agree with the impacts scoped in?	24/09/2021	Yes	Yes	Yes	Yes	
5	Does the ETG agree with the approach to impact assessment?	24/09/2021	Yes	Yes	Yes	Yes	
6	Does the ETG agree with the approach to considering constraints for site selection?  Are there any additional data sources that should be used?	24/09/2021	Yes	Yes	Yes	Yes	



# **Dogger Bank South Offshore Wind Farms**





#### **Call Overview** 1

Date of Call	27 <sup>th</sup> September 2021					
Time of Call	10:00					
Participants	<ul> <li>(PC) – RWE Renewables</li> <li>(HC) – Royal HaskoningDHV</li> <li>(CC) – Royal HaskoningDHV</li> <li>(SW) – Anatec</li> <li>(JM) – Anatec</li> <li>(NS) – MCA</li> <li>(PL) - MCA</li> <li>(TH) – Trinity House</li> <li>(SV) – Trinity House</li> </ul>					
Call Purpose	Introduction to the Dogger Bank South Offshore Wind Farms and high level overview of shipping and navigation ahead of the Scoping Report being published.					

### 2 **Agenda**

- Welcome and introductions
- Dogger Bank South Offshore Wind Farms:
  - Project background;
  - Current status; and
  - Programme
- Scoping Report and approach to Environmental Impact Assessment (EIA):
  - Approach to Scoping; and
  - Scoping programme
- Shipping and navigation:
  - Scoping Report overview;
  - Further datasets for Navigation Risk Assessment (NRA);
  - EIA and NRA methodology;
  - Questions for consideration; and
  - Next steps.
- AOB

27.09.2021 Page A4691-RWE-MIN-02

Title Pre Scoping Meeting with MCA and Trinity House



### 3 **Meeting Minutes**

#### 3.1 Welcome and introductions

PC led a round of introductions noting that RWE Renewables are the developer of the Dogger Bank South Offshore Wind Farms, Royal HaskoningDHV (RHDHV) are the EIA coordinator and Anatec are the shipping and navigation specialist.

### 3.2 **Dogger Bank South Offshore Wind Farms**

- PC provided an overview of RWE Renewables' offshore wind presence in the UK which includes 11 sites. Early days in terms of EIA workstreams noting the wider HRA work is ongoing by the Crown Estate.
- The Dogger Bank South site is located between 110 and 140 kilometres (km) offshore (from North Yorkshire) and in relatively shallow water given the proximity to the Dogger Bank. Maximum capacity of 3 Gigawatts (GW) across the two separate projects (1.5 GW each).
- PC stated that the number of grid connections is still to be confirmed at this stage.
- The Scoping Report is currently being reviewing internally with an intended submission of 12th November 2021. HRA work is ongoing and is expected to conclude in spring 2022, with refinement of the site boundary possible both at that stage and throughout the consenting process.
- The indicative programme is based on DCO Application in late 2023 with a consent decision in mid-2025. These dates are highly dependent on the availability of grid connection with the project likely to be operational between 2028 and 2032

### 3.3 Scoping Report and Approach to EIA

JM outlined the approach to Scoping and introduced the Scoping programme. It is anticipated (depending on PINS) that the consultation period will run between 19th November and 17th December 2021 with the Scoping Opinion then issued on 24th December 2021.

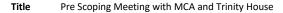
### 3.4 **Shipping and Navigation**

- JM presented the study areas being considered for shipping and navigation including for the array areas (10 nautical mile (nm) buffer) and the export cable route (likely 2nm buffer in the NRA). As part of the cumulative assessment consideration will be taken of routeing beyond 10nm.
- JM presented the navigational features within and in proximity to the array areas, including the other (consented) offshore wind farms and several oil and gas surface platforms. Vessel access to oil and gas installations will require consideration in the EIA as part of the Other Users Chapter.
- JM presented vessel traffic data recorded via satellite within and in proximity to the array areas and used for the Scoping Report noting that coverage during the winter

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Client RWE Renewables





period was poor. A route operated by DFDS Seaways passing at the southern extent was highlighted.

- The vessel traffic surveys for the NRA will consist of two vessels undertaking separate surveys in each array area (Dogger Bank South West and Dogger Bank South East) and in two seasons. These will likely take place between January and March 2022 (winter) and June and August 2022 (summer) and be fully compliant with MGN 654.
- Long term AIS analysis and Anatec's ShipRoutes database will also be used to assist with identification of seasonal variation and adverse weather routeing.
- MCA and Trinity House were satisfied with the survey methodology proposed \*noting that the data when collected will need to be reviewed.
- JM summarised the likely significant effects and embedded mitigation measures which will be considered and noted that the impacts will also be considered on a cumulative and transboundary basis. SW noted that the project will be monitoring cumulative changes noting that by the time the surveys are undertaken Hornsea Project Two will be baseline, but Hornsea Four will need to be considered as part of the cumulative approach.
- JM gave a high-level overview of the EIA and NRA guidance and methodology noting the Formal Safety Assessment will be used.
- JM noted planned consultation before presenting several questions for consideration that are repeated in the Scoping Report chapter and are of particular interest.
- Next steps for the project include the Scoping Report submission and Scoping Opinion publication, with the NRA to be undertaken in Q3 2022 including a Hazard Workshop. The PEIR is planned to be submitted in January 2023 with DCO Application in November 2023.

## 3.5 AOB

- TH asked whether the changes to the National Policy EN-3 will be considered; SW stated that relevant guidance at the time of each application phase will be considered as required.
- TH asked whether the project see the National Grid plans for use of interconnectors affecting this project or are they looking at dedicated export cables; PC noted that consultation with National Grid was ongoing, and it was too early to tell but interconnector options weren't ruled out.

## 4 Actions

No actions were recorded.

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**Document Reference** A4691-RWE-MIN-02

# **MEETING AGENDA**

Title of Meeting	Dogger Bank South Seabed Expert Topic Group – Pre- Scoping
Date	28 <sup>th</sup> September 2021
Time	10:00 – 12:00
Location	Online – Microsoft Teams
<b>Document Reference</b>	PC2340-RHD-ZZ-OF_MI-Z-0009
Number	

Attendees:	Initials	Role and Organisation
	PC	Offshore Consent Lead, RWE
	DBru	Offshore Consent Manager, RWE
	VR	Onshore Consents Manager, RWE
	AB	Onshore Consents Manager, RWE
	AC	Offshore Consents Manager for Triton Knoll, RWE
	HC	Offshore Lead, Royal HaskoningDHV
	DB	Principal Coastal Geomorphologist, Royal HaskoningDHV
	LB	Senior Environment Consultant, Royal HaskoningDHV
	CC	Offshore Support, Royal HaskoningDHV
	PM	Senior Consultant, MarineSpace
	OW	Marine Consultant, MarineSpace
	EB	Marine Senior Adviser, Natural England
	EJ	Acting Case Officer, Natural England
	YF	Marine Lead Adviser, Natural England
	AF	Marine Senior Specialist, Natural England
	СР	Marine Planning Officer, The Wildlife Trusts
	TS	Senior Environmental and Scientific Officer, NEIFCA
	JS	Marine Licensing Case Officer, MMO

Number	Details	Action
1.	Welcome and introductions	
	All attendees introduced themselves and their role in relation to the projects. Run through of the agenda.	



## 2. Dogger Bank South offshore wind farm

PC – Project background – an introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements was provided.

HC – Scoping report to be submitted approx. 12<sup>th</sup> November. ETG meetings feeding into this process. TCE Plan Level HRA due to conclude Spring 2022.

HC – Onshore Grid Connection. Three broad locations being considered for the connection location – Hawthorn Pit, Creyke Beck and South of Humber. Broad offshore scoping study area, will be refined when grid connection point(s) confirmed by National Grid. Aware of the recent changes to the Hornsea 4 boundary area.

HC – Discussion of indicative programme. DCO application hope to be submitted November 2023, stakeholders will be engaged throughout the entirety of the process.

## 3. <u>The Evidence Plan Process (EPP)</u>

HC – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, and the documents to be produced was provided. If you have not received the initial EPP documentation let us know and we will issue out.

HC – If you feel it would be beneficial to have a Steering Group meeting please let us know and this can be arranged.

HC – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-PEI, post-PEI and pre DCO submission). Other meetings can be arranged as required.

## 4. Scoping Report & Approach to EIA

HC – Approach to scoping – use of the three broad onshore search areas and one large offshore area. Due to the size of the areas the Project's ability to scope out many items has been restricted.

HC – Scoping programme – Scoping report published approximately 12<sup>th</sup> November, Scoping Opinion due 24<sup>th</sup> December 2021 (potentially early January 2022). After the Scoping Opinion is received there will be another ETG meeting to discuss that opinion, if required.



# 5. Marine Physical Environment

DB – Summary of the existing environment. Minimum and maximum depths in the array area are between 20 – 50m. Flamborough Front located close to the array area. Study area exposed to relatively high levels of wave energy.

DB – Bedload sediment dominated by sand, some patches of gravely sand, quite coarse across the survey area. Low suspended sediment concentrations across the site. Sediment transport is predominantly to the south within the region. Broad assessment of the baseline prior to the narrowing down of the search area. Does ETG agree with this characterisation of the existing environment? Anything missing?

EB – Although I agree net sediment transport is to the south, there is a gyre in the Bridlington Bay area, as such potential for sediment to move north as well. Has been found with other developments in the past.

DB – Yes that is correct, headland areas will have an effect on local processes. Will be taken into consideration if landfall is in such an area.

EB – Should consider receptors to the north even if predominant sediment transport is to the south.

DB – Agreed this will be considered in the assessment.

YF – Will the assessment refer to the Flamborough Front and will this form part of the data collection and studies?

DB – Yes this will be assessed as part of the impact assessment. It is a complicated feature due to its fluctuations depending on circulation patterns, but we think we have a good handling of the feature and how it varies.

YF – Will we consider salinity and temperature in the assessment also?

DB – Won't be in the physical processes section, this will be assessed in the marine water and sediment quality section.

YF - Will we look at inter-annual beach variability?

DB – Evolution of the coastline will be included in the baseline, it will be used conceptually to assess what the landfall construction and operation will be. If HDD is to be used, we tend not to assess in as much detail as from an operational perspective the infrastructure will be beneath the ground and will exit behind the coastline.



YF – We need to understand how the coastline will evolve in the context of sea level rise, climate change.

DB – We will assess potential future evolution of the coast in the context of sea level rise. If HDD used, sea level rise will be less important due to underground nature of the cable. Any infrastructure proud of the coast would have to be assessed carefully.

YF – Will seabed bathymetry and seabed morphology be considered in the assessment?

DB – Seabed bathymetry will be considered in respect to mobile bedforms across the array area. We won't be comparing bespoke bathymetry to historic bathymetry as we do not have such data, and so cannot quantify such changes.

DB – Provided an overview of the proposed data collection. Geophysical surveys should contain side-scan sonar and subbottom profiling. These will be supported by grab sampling and Particle Size Analysis. Locations of grab sampling and PSA will be determined by the geophysical surveys.

DB – On top of project-specific data, we will use other existing data and information. Data from Dogger Bank A, B C and Sofia is quite extensive and forms a very strong part of the evidence base. Does ETG agree with approach to data collection? Are there any other data sources that could be used? No additional information suggested.

DB – Description of potential impacts, why impacts have been scoped in/scoped out. Most impacts are scoped in. No concerns were raised on the items scoped in or out.

DB – Approach to EIA will be based on Source-Pathway-Receptor (SPR) conceptual model. We have a strong evidence base from other Dogger Bank wind farms to use as a conceptual model, therefore we are not intending to use numerical modelling.

DB – The assessment will be looked at from two perspectives. If a receptor has intrinsic value, a change to that would be an impact and then determine significance of impacts. We will also consider impacts which, while not having an assignable impact on a feature itself, such as an increase in suspended sediment concentrations, could have an indirect impact on other receptors. Does ETG agree with this approach?

YF – Such a broad area, can't be certain of those receptors that would be affected. Hard to say if this approach is the most appropriate at this stage.



DB – Change in suspended sediment alone is not an impact, it could impact other receptors. It will then be assessed by other chapter leads where relevant such as benthic ecology, fish and shellfish or even archaeology. In this instance for marine physical processes, this would not be an impact just a change. If it will have an impact on a receptor that has a morphological or sedimentary value, such as a sand wave, then this will be assessed.

YF – If there is a designated feature and assume worst-case scenario you would need sufficient characterisation of the baseline before such an assessment can take place.

DB – Agreed, after surveys we will better understand the receptors present in the study area. Determination of the intrinsic value of receptors will be defined when we review the site specific data.

DBru – As we move through the EPP this will be refined further. As we gather data it's something we can discuss through the Evidence Plan Process. Just the approach being defined right now rather than the specificity of the receptors.

DB – That is correct. Assessment approach will be refined, but rest assured any receptor with an intrinsic value will be assessed.

EB – Regarding the use of data from other Dogger Bank projects, we are looking at potentially a different cable route to other offshore wind farm projects, how will that factor in to the use of data from other projects? Also as these projects have not yet been built, we haven't been able to test any kind of assumptions made in the modelling, how will we manage that in the way you apply the data?

DB – It's correct that we don't have post-construction data, so we will make the judgement based on the outputs of the models available. If the cable route is located within a completely different area, we would consider if existing data and modelling is suitable and discuss this with stakeholders.

EB – On array side, what evidence will we collect to show it is directly comparable to Dogger Bank A and B?

DB – Bathymetry data, seabed sediments, benthic surveys. It is not intended that we will collect tidal current or wave data, therefore will use existing data from hydrodynamic model. If environments are similar, supports the use of their data as an analogy.

EB – This will need to be clearly explained in the assessment as to why the modelling outputs from previous projects can a be used. It was agreed that this needs to be clear.



AF – Just to add to what said, we want to see the reassurance that the data is comparable, want to see what the next options are if the data is not comparable.

## 6. Benthic Habitat and Species

LB – Existing environment. Kept very high level of large study area. Annex I sandbanks, Annex I reef present in study area. Potential presence of *S. Spinulosa*. Intertidal environment will be characterised through intertidal surveys in 2022 to narrow down the habitat types we're looking at.

- EB Why have we not mentioned Holderness Inshore MCZ?
- LB Slide is an overview, Holderness Inshore MCZ is considered in the scoping report.
- EB Are we considering supporting habitats of designated sites also?
- LB Yes we are.
- HC Given the number of sites currently in the study area, we didn't want to make the slide too large.
- LB Description of biotopes. Does ETG agree with this characterisation of the environment?
- EB Hard to comment as its so high level, not that we disagree but hard to agree also.
- LB Yes absolutely, just useful to know if there's anything glaring that was missed.
- LB Description of proposed data collection, existing datasets and site specific datasets to be collected in 2022. Each will inform the assessment. Does ETG agree with approach to data collection?
- AF Are there any other data sources that could be used? Benthic data from existing wind farms, aggregate industry and the Regional Environmental Characterisation, OneBenthic, there is a lot more data out there.
- LB Other datasets will be used, yes. Not all datasets are included on the slide such as those from JNCC and Natural England.
- LB Potential impacts. Description of scoped in/out impacts. Does ETG agree with impacts scoped in/out?



EB – Pollution events scoped out, is this because they'll be managed through plans? Under the Habitats Regulations this would need to be scoped in and then apply mitigation in order to rule out adverse effect. On interactions with EMF, there is emerging evidence of EMF affecting shellfish, this may be more relevant for the fish and shellfish chapter.

LB – Will discuss with the other chapter leads on this aspect.

EB – Would expect consideration of this somewhere in the assessment at an early stage, whether in benthic or fish and shellfish chapter, can signpost between.

AF – EMF is not a show-stopping issue, but not completely clear there's no impacts, not comfortable its completely scoped out.

EB – A lot of cables coming in along the coast, may have to consider cumulative effects if making landfall in vicinity of other cables.

LB – Approach to EIA. Standard EIA approach, cross reference to other relevant chapters. Sensitivity based on MarESA framework where possible. Does the ETG agree with this approach? Nothing raised.

## 7. Fish and Shellfish Ecology

OW – Existing environment. Some important commercial fisheries groups. Pelagic fish include herring, sprat and mackerel are common, cod use area for spawning (peak in Feb). Demersal species include plaice, dab, monkish, cod.

OW – Herring and sandeel, known spawning habitat in the Dogger Bank. Migratory species include salmon, sea trout and European eel. Wide range of elasmobranchs. Shellfish species include lobster, brown crab, brown shrimp, Norway lobster.

OW – Does ETG agree with characterisation?

TS – Add scallops to the shellfish list. This was noted.

OW – Proposed data collection. High level for now. Baseline undertaken with desk-based approach. We will use data aggregation sources. Tim maybe should have a discussion on getting inshore landing data from IFCA?

TS - Yes we can help with that.

OW –We will also use data from other nearby offshore wind farms. Does ETG agree with approach to data collection?

EB – It would be worth looking at other projects nearby, there are a few oil and gas projects along the Holdnerness coast, would cast net a little wider than just data from offshore wind farms.



OW – This is noted and these projects will be looked at. EIA chapter will look more in depth into impact assessments across the region.

OW – Potential impacts, description of scoped in/out impacts. EMF scoped out, rationale is that recent projects have found no significant effect, evidence base is growing. From a fish perspective at least, receptors are unlikely to be affected physiologically or behaviourally. We could absolutely look at EMF effects for some of the receptors, if appropriate.

AF – Wouldn't feel comfortable EMF effects being scoped out of fish chapter, is an emerging body of research.

OW – Could you share the recent shellfish paper?

EB – Was not referring to a particular paper before, it is an emerging evidence base. In the past there hasn't been a lot of work done in the area. Would be reluctant to be scoped out at this stage.

AF – NatureScot have done work on this area, had an Erasmus student doing a project om EMF impact, worth investigating.

OW – Definitely something to take away and discuss, understand the reluctance.

OW – Does the ETG agree with the impacts scoped in/out?

TS – On the displacement of effort, is this a standard approach to scope out during construction and decommissioning?

OW – Previously have scoped out yes, worst-case scenario comes typically from operational phase.

TM – This is the impact on fish ecology rather than the socioeconomic impacts from fishing, have a slide coming up on this.

OW – Approach to EIA. Establish baseline, not proposing to do site specific surveys. On herring and sandeel specifically, to supplement existing data, we will conduct modelling to determine heatmaps of potential spawning ground locations. Model was developed in-house. It is a rigorous model that we have had success with in the past.

OW – Looking at footprint of potential habitat loss. Noise modelling conducted, full assessment of noise assessments to be included. Does ETG agree with this approach?

Apart from the comment on EMF being scoped in no further comments raised.

TM – Commercial fisheries impact summary. Description of scoped in/out impacts. Does ETG agree with these scoped in/out impacts?



TS – Looks fine to me, once you start talking to fishermen they may have something to say. There is lot of work going on regionally at the moment, the NEIFCA will help out where they can.

TM – Thank you, and yes we have highlighted quite a few of the regional fishing groups.

TS – There is not a lot of local representation established in the Sunderland area or Lincolnshire coast. As the area of search includes the Lincolnshire coast could we include Eastern IFCA?

HC – Yes, we did invite EIFCA but they indicated they would leave it to NEIFCA. Said we would send minutes over to them and keep them up to date.

TS – That's fine, will keep Judith informed.

HC – FLO should be appointed in next few months.

## 8. Approach to HRA

HC – Very early on but effects on DB SAC will be a key issue for the Projects. TCE Plan Level HRA ongoing, where possible we will seek to avoid, reduce and mitigate any impacts. Will keep discussing this with stakeholders as we move forward.

HC – Compensation will be discussed as we move forward. At this stage everything should be on the table. Some measures are out of a single developers control such as fisheries measures. Does ETG agree with these measures? Any other comments?

AF – Compensation, may be other ideas that come along, wouldn't rule anything out at this stage. Direct measures, may be options within the site and any opportunities within a different site? Site designation, don't be constrained to the designation process as we see it now, investigate other ways of protecting seabed outwith the current designation process e.g. byelaws and covenants.

HC – Welcome to conversations around other ideas with stakeholders. We are keeping an eye on existing workstreams and other projects. We aware of the desire to work with other developers.

## 8. Site selection methodology

HC – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection.



	HC – Site selection short-list to be identified early next year.  AF – On the National Grid position, how are we interacting with the Offshore Transmission Network Review (OTNR)?  PC – RWE have been engaging with the process. Significant consideration at this stage of the project.  AF – A lot could change as a result of the OTNR.  PC – Agreed, thanks for your comment, hoping for some more clarity soon.  HC - Any further comments? If any after the meeting please get in touch.	
9.	AOB/Next Steps  Minutes will be issued.	



# **Agreement / Disagreement Log**

ID	Issue on which RWE seek agreement	Date					Notes
			Natural England	The Wildlife Trusts	NEIFCA	MMO	
Ma	rine Physical Environment						
1	Does the ETG agree with this characterisation of the existing environment?	28/09/2021	Yes*	Yes	Yes	Yes	Queries on other points to consider in the baseline.
2	Does the ETG agree with the approach to data collection? Are there any other data sources that could be used?	28/09/2021	Yes	Yes	Yes	Yes	
4	Does the ETG agree with the approach to EIA?	28/09/2021	Yes*	Yes	Yes	Yes	Queries on whether the approach is appropriate. The use of modelling data from previous Dogger Bank projects needs to be clearly explained and shown that the areas are comparable for this to be used.
Ben	thic Habitat						
6	Does the ETG agree with this characterisation of the existing environment?	28/09/2021	N/A*	Yes	Yes	Yes	Hard to comment as it is at such a high level at present.
7	Does the ETG agree with the approach to data collection? Are there any other data sources that could be used?	28/09/2021	Yes*	Yes	Yes	Yes	Recommended other data sources that should be explored from other types of projects such as oil and gas / pipelines.



ID	Issue on which RWE seek agreement	Date					Notes
			Natural England	The Wildlife Trusts	NEIFCA	MMO	
8	Does the ETG agree with the impacts scoped in?	28/09/2021	No*	Yes	Yes	Yes	Pollution events should be considered in relation to the HRA where they would need to be screened in before mitigation applied. EMF interactions should be scoped in here or in fish and shellfish.
9	Does the ETG agree with the approach to EIA?	28/09/2021	Yes	Yes	Yes	Yes	
Fish	and Shellfish Ecology						
10	Does the ETG agree with this characterisation of the existing environment?	28/09/2021	Yes	Yes	Yes*	Yes	Add scallops to shellfish baseline.
11	Does the ETG agree with the approach to data collection? Are there any other data sources that could be used?	28/09/2021	Yes*	Yes	Yes	Yes	Should look at data sources from other projects nearby, not just offshore wind farms.
12	Does the ETG agree with the impacts scoped in?	28/09/2021	No*	Yes	Yes	Yes	Not comfortable with EMF interactions being scoped out.
13	Does the ETG agree with the approach to EIA?	28/09/2021	Yes	Yes	Yes	Yes	
Con	nmercial Fisheries						
14	Does the ETG agree with the impacts scoped in?	28/09/2021	Yes	Yes	Yes	Yes	

**RWE** 

ID	Issue on which RWE seek agreement	Date	Natural England	The Wildlife Trusts	NEIFCA	MMO	Notes
App	proach to HRA					<u>.</u>	
15	Does the ETG agree with these measures? Any additional ones to consider?	28/09/2021	Yes*	Yes	Yes	Yes	Should investigate other ways of protecting the seabed outwith the current designation process.
Site	Selection Methodology	-					
16	Does the ETG agree with the approach to considering constraints for site selection? Are there any additional data sources that should be used?	28/09/2021	Yes	Yes	Yes	Yes	

# **Risk Register**

RAG Status Description	RAG
Stakeholder(s) considers that unless these issues are resolved it will have to advise that the project	
is not consented	
Stakeholder(s) and Applicant considers that these issues have potential to be resolved. Should this	
not be possible they may become Red issues.	
While there is disagreement between the Stakeholder(s) and Applicant the stakeholder considers	
that they are matters which are not sufficient to object to the consenting of the project.	

ID	Description of Issues Identified in Agreement/ Disagreement Log	RAG Status	Actions
9.1	Natural England is not comfortable with EMF interactions being completely scooped out of the EIA.		Scope EMF interactions into the Fish and Shellfish chapter of the EIA.



# **MEETING AGENDA**

Title of Meeting	Dogger Bank South Offshore Ornithology Expert Topic			
	Group – Pre-Scoping			
Date	13 <sup>th</sup> October 2021			
Time	10:00 – 12:00			
Location	Online – Microsoft Teams			
Document Reference	PC2340-RHD-ZZ-OF_MI-Z-0010			
Number				

Attendees:	Initials	Role and Organisation
	PC	Offshore Consent Lead, RWE
	DB	Offshore Consent Manager, RWE
	PB	HRA Manager, RWE
	VR	Onshore Consents Manager, RWE
	AB	Onshore Consents Manager, RWE
	HC	Offshore Lead, Royal HaskoningDHV
	HR	Senior Ornithologist, Royal HaskoningDHV
	CC	Offshore Support, Royal HaskoningDHV
	EJ	Case Officer, Natural England
	EB	Case Manager, Natural England
	SA	Senior Marine Ornithologist, Natural
		England
	AMc	Senior Conservation Scientist, RSPB
	КВ	Marine Licensing Case Officer, MMO

Number	Details	Action
1.	Welcome and introductions	
	All attendees introduced themselves and their role in relation to the projects. Run through of the agenda.	
2.	Dogger Bank South offshore wind farm	
	PC – Project background – an introduction to RWE Renewables (RWER), an overview of the Dogger Bank South East and Dogger Bank South West projects and a summary of the likely infrastructure requirements was provided.	

HC – Scoping report to be submitted approx. 12<sup>th</sup> November. Expert Topic Group (ETG) meetings feeding into this process. The Crown Estate's Plan Level Habitats Regulations Assessment (HRA) process is due to conclude in Spring 2022.

HC – Onshore Grid Connection. Three broad locations are being considered for the connection location – Hawthorn Pit, Creyke Beck and South of Humber. A broad offshore scoping study area, will be refined when grid connection point(s) are confirmed. The project notesthe recent changes to the Hornsea 4 boundary area.

HC – Discussion of indicative programme. DCO application to be submitted November 2023, stakeholders will be engaged throughout the entirety of the process.

## 3. The Evidence Plan Process (EPP)

HC – An overview of the EPP and its purpose, a list of the aims of the ETG, an overview of the other ETGs, discussed documents to be produced was provided. If you have not received the initial EPP documentation let us know and we will issue.

HC – Upcoming meetings – four more meetings proposed around key programme dates (post scoping, pre-Preliminary Environmental Information (PEI), post-PEI and pre-DCO submission). Other meetings can be arranged as required.

## 4. <u>Scoping Report & Approach to EIA</u>

HC – Approach to scoping – use of the three broad onshore search areas and one large offshore area. Due to the size of the areas it is has not been possible to scope out many issues at this stage.

HC – Scoping programme – Scoping report to be published approximately 12<sup>th</sup> November, Scoping Opinion due 24<sup>th</sup> December 2021 (potentially early January 2022).

HR – List of expected species likely to be present based on existing data.

HR – Proposed data collection – Map shows the offshore study area and aerial survey areas for bird surveys. Array site does not overlap with any SPAs.

Question: SA – Offshore Study Area, what is the implication for offshore ornithology or is it more related to cable routes? Answer: HR – Yes, because of those grid connections and the scope we've drawn a wide buffer for the offshore study area. Study area will reduce as the landfall is confirmed.

HC – Surveys commenced in March, methodology discussed with Natural England, APEM and RWER prior to the surveys starting.

HR – Standard guidance and datasets that will be used, with any new research and guidance utilised as the projects develop.

HR – Key potential impacts. Focused on disturbance / displacement during construction/decommissioning. During operation will be focusing on displacement from turbines and any birds not displaced may be at risk of collision.

HR – Also looking at cumulative impacts with other North Sea offshore wind farms. Transboundary impacts will be assessed too.

Q: HC – Everyone OK with the impacts scoped in?

A1: SA – Initial review this looks fine and as expected.

A2: AMc – Nothing from me either.

HR – We will be using the Source-Pathway receptor approach. EIA will provide a baseline and how the site is used by birds throughout the year. Surveys will provide density and abundance estimates, flight height data will focus on industry standard datasets, will report flight height data from the aerial surveys also.

Q: SA – Which survey provider are you using?

A: HR - APEM.

Q: SA – Will no other sources of flight height data be used?

A: HR – APEM will be collecting information on flight height using their digital stills, but no additional collection based on Lidar for example.

HR – Generic Flight height data set will be used in the collision risk model, assessment will be based on quantitative methods. Discussions will be ongoing with stakeholders on the approach to the assessment and the methods to be used.

Q: AMc – On the PVA will you be using Natural England online

A: HR – Yes, that is the proposal right now.

AMc - Thanks

SA – By time of writing of PEIR, will the cumulative effects framework be up and running? New tools in the pipeline could be used in the lifetime of the project. NE perspective, advice would be updated in terms of the most appropriate tools as they become available.

# 5. Approach to HRA

HC – Very early on but effects on Flamborough and Filey Coast SPA is likely to be a key issue for the Projects. Where possible, we will seek to avoid, reduce and mitigate any impacts. Table in the presentation shows a number of things that are being considered such as reducing turbine numbers, considering uncertainties in assessments such as in relation to headroom.

SA – Headroom – Headroom workshops were undertaken earlier in the year, important to note that NE's position is still that asbuilt parameters in English waters are not secure from a legal perspective. We are keen to see this resolved and have asked regulators to consider it but until this has been resolved NEs position will be to model the consented parameters opposed to the as-built scenario.

SA – There has been additional uncertainty caused by the fact that the as built parameters have had to be approximated.. Accurately modelling with the actual parameters from as-built projects would be a good process for demonstrating how important it is to sort out that headroom issue.

HC – The recent draft NPSs include for a requirement in DCO for as-built info to be submitted to the regulator and can't build out more than the consented area.

PB – Difficult issue this one, everyone wants to get it resolved, sure the regulator is fully aware, should be addressed in due course. We will undertake modelling under consented and asbuilt, demonstrating the contrast.

SA – Potentially it would be worth considering modelling the asbuilt and then the remaining bit of capacity as a worse case, as a way of moving forward. This may might help reduce the uncertainties, but the unused capacity would still be considered the worst case.

HC – That's helpful, and we can certainly look at this approach.

SA – For the Dogger Bank areas, one of the key uncertainties is in relation to apportioning, therefore we would encourage you to think about whether there is extra data that could be collected to help address this uncertainty. Current Dogger Bank projects have proposed a range of things for their Ornithological Monitoring Programmes, but these may not be delivered in the timeframes for these projects.

PB – On tracking data, where would it be most appropriate to do this? Would further work at the FFC SPA be useful? Would like to discuss this with you further.

SA – That sounds really good, if this was something the projects could look at to build the evidence base.

AMc – Agree with ASA, on consented vs as built, the modelling method you suggested is a really good idea as it will reduce the modelled cumulative impacts and provide a more realistic approach.

In relation to tagging there is no scheduled tagging for FFC SPA for next year, likely some for kittiwake and gannet in 2023. Therefore RSPB and other parties looking for resources to carry out tagging in 2022 as the last tagging effort was in 2018 and it would be unfortunate to have to wait till 2023. There is a lot of variability in the tagging data, had planned to do it over the last 3 years, but this hasn't been achieved. Some was done this year however it wasn't successful due to unusual moulting patterns in kittiwake.

Would welcome discussions on tagging, should speak to FFC SPA monitoring groups on this, tagging is needed for this project and strategically.

Q: PB – Shall I set up a meeting to develop this further?

A: SA and AMc - Yes

**Action** - PB to set-up separate meeting with interested parties to discuss further survey resourcing in early November.

AMc – Who is leading on the Flamborough and Filey Coast SPA monitoring?

SA – Few groups in the FFC SPA monitoring. I would be the go between on the ornithology perspective. Would look to join it all up.

EB – There is a high-level strategy that has been put together by the steering group.

Q: HC – Are you able to share this widely or need to be a member?

A: EB – Not sure, I'll go away and have a look at what we can share.

**Action** - EB to check if they can share info from the FFC SPA group.

EB – Have an overarching steering group, next meeting in November, if there is an opportunity to have a meeting ahead of the November meeting could then go the wider group with the sort of suggestions of the types of work that you'd be interested in undertaking. Makes sense to have a discussion first given the wide range of the study area.

РΒ

ΕB

AMc – Flight heights. If things work well there will be data from existing tagging projects, highlighted that another developer has conducted boat surveys using laser range finders to collect site-specific data. Such data is very important as need to see how the birds are using the site. Welcome that will be looking at the turbine draft height, as soon as can commit to as high as possible, makes it easier moving forward.

HC – This is a conversation we're having with the engineers and ensuring being considered early on.

PB – Aware of the range finder data. How confident are you in such data and its use in impact assessments?

AMc – Needs some further validation this could be done using existing structures, but could also be done using drones, to give a higher degree of confidence.

SA – From NE perspective, not seen that study but am aware of it, was a Scottish OWF was trialled at, can't make a specific comment on that work.

SA – Likely same approach at Sheringham Shoal, data seemed promising, validation is an issue with flight height data, held back by no clear route of requiring certain level of validation, would welcome seeing the Scottish data could then provide more specific comments.

AMc – Not been written up fully yet, will share it when available. SA – Sheringham Shoal data been published under post-consent monitoring reports, can be shared. Could discuss this also in the next meeting.

Action - SA to share Sheringham Shoal dataset.

HC – Be good to discuss how tagging data can be used for non-breeding birds as well.

HC – Compensation will be discussed as we move forward. At this stage everything should be on the table. Some measures are out of a single developers control, such as fisheries measures. Does ETG agree with these measures? Any other comments?

SA – Not many thoughts at present, all measures listed are the general measures usually see, captures all of the possibilities.

HC – Also on our radar is around strategic approaches, and how developers are working together in relation to compensation.

EB – May be an opportunity to work with nearby developers given the similar timescales, if we can look to develop strategic options as a Round 4 cohort for example, this would be very beneficial.

SA

AMc – there is a real opportunity to have this collaborative strategic approach, which would help the effectiveness of any measures. The measures listed are very broad. One of the issues at the moment is that measures are not specific enough when going into examination, more detail is required and the sooner can engage with that the better.

PB – Agreed, will provide as much detail as we can.

SA – To flag, conversations around compensation are time-consuming, take time to work up a proposal, start without-prejudice discussions as early as possible. Approach has been to leave discussions to the end which has led to extensions being required.

PB – Exactly what we're doing, depends on the outcome of the Plan-Level HRA.

HC – May have separate ETGs on these points moving forward, can be part of ongoing discussions.

HR – Headroom issue, in terms of accurately modelling as-built rather than estimating, what assumptions in the data would be required to model the extra capacity.

SA – Accurately modelling vs estimating – Two workshops, both focused on the legal aspects, technical aspects were not discussed, comes down to opinion and advice on the appropriate modelling. NE in favour of re-running of models with new parameters.

SA – Extra capacity modelling, an offshoot after the workshops suggested to NEs legal team, they are considering this. Legal uncertainty is the unused capacity in the consent. Extra capacity would need to be modelled as legally it could be built. Work is underway as part of the cumulative effects framework. Could have a lot of flexibility moving forward when this data exists.

# 6. <u>Site selection methodology</u>

HC – Site selection – review of the step-by-step process which gives the areas of search, then a long-list, short-list and finally the design freezes for PEIR and the DCO application. ETG presented with an overview of the constraints being considered during site selection.

HC – Site selection short-list to be identified early next year.

## 7. <u>AOB/Next Steps</u>

Reviewed the actions from the meeting and HC thanked everyone for their time and input.

Action Summary

Action - PB to set-up separate meeting with interested parties to discuss further survey resourcing in early November.

Action - EB to check if they can share info from the FFC SPA group.

Action - SA to share Sheringham Shoal dataset.

# **Agreement / Disagreement Log**

ID	Issue on which RWE seek agreement	Date				Notes
			Natural England	RSPB	MMO	
1	Does the ETG agree with the list of most common species in the project area?  Are there any additional species that should be given special consideration?	13/10/2021	Yes	Yes	Yes	
2	Does the ETG agree with the approach to data collection? Are there any other data sources that could be used?	13/10/2021	Yes	Yes	Yes	Points raised on additional data collection (e.g tagging studies) being conducted, follow-up meeting to discuss this being arranged by Phil Bloor.
4	Does the ETG agree with the impacts scoped in?	13/10/2021	Yes	Yes	Yes	
6	Does the ETG agree with the approach to EIA?	13/10/2021	Yes	Yes	Yes	
7	Does the ETG agree with these measures? Any additional ones to consider?	13/10/2021	Yes	Yes	Yes	
8	Does the ETG agree with the approach to considering constraints for site selection?  Are there any additional data sources that should be used?	13/10/2021	Yes	Yes	Yes	

RWE

# **Risk Register**

RAG Status Description	RAG
Stakeholder(s) considers that unless these issues are resolved it will have to advise that the project	
is not consented	
Stakeholder(s) and Applicant considers that these issues have potential to be resolved. Should this not be possible they may become Red issues.	
While there is disagreement between the Stakeholder(s) and Applicant the stakeholder considers	
that they are matters which are not sufficient to object to the consenting of the project.	

ID	Description of Issues Identified in Agreement/ Disagreement Log	RAG Status	Actions



# **Minutes of Meeting**

		<b>Expert Topic Group Mo</b>		
	Document	Number: 004502941-		
Meeting with:	Dogger Bank South Expert Topic Groups			
Location:		Teams		
Start Time of Meeting:	10am	Date of Meeting: Wednesday 4 <sup>th</sup> May		
Attendees	Initials	Re	ole & Organisation	
	HC	Project Ma	nager, Royal HaskoningDHV	
	AB	Onshore Cor	nsents Lead, RWE Renewables	
	VC	Onshore Conse	ents Manager, RWE Renewables	
	DB	Offshore Conse	ents Manager, RWE Renewables	
	AC	Offshore Conse	ents Manager, RWE Renewables	
	JF	Assistant Projec	t Manager, Royal HaskoningDHV	
	LB	GIS Lea	ad, Royal HaskoningDHV	
	PM	Engine	eer, Wardell Armstrong	
	MS	East Ric	ding of Yorkshire Council	
	SD	East Riding of Yorkshire Council		
	VG	East Riding of Yorkshire Council		
	NM	East Riding of Yorkshire Council		
	GF	East Riding of Yorkshire Council		
	DH	East Riding of Yorkshire Council		
	LG	Environment Agency		
	RJ	Er	nvironment Agency	
	GW	Er	nvironment Agency	
	СВ	Er	nvironment Agency	
	CC	Er	nvironment Agency	
	СР		Historic England	
	SC		Historic England	
	KW	Marine M	Management Organisation	
	TS	N	Iorth Eastern IFCA	
	AM		RSPB	
	BL	Yo	rkshire Wildlife Trust	
	EM	Yo	rkshire Wildlife Trust	
JC York Consortium of Drainage Boards				



	Apologies	Initials	Role & Organisation	
			National Highways	
			Natural England	
			The Wildlife Trust	
Meeting A	genda/ Objective(s):		<ul><li>Provide ETGs with a project update</li><li>Review the site selection work for Creyke Bed</li></ul>	ck
Item		Desc	ription/ Discussion	Presenter
1.	Welcome and Introdu	uction		НС
	HC explained the age	nda and ain	ns of the meeting	
	HC introduced the Do	gger Bank S	South Project team.	
2.	Dogger Bank South Edo of the likely infrastructor Current Status – an up Inspectorate in July 2 submitted by the Crow Indicative Programme submission February 2 will be frozen in advar August/September 20 Key questions for consumer of the site select Can your orgo preferred opti	ast and Dog ture require odated Scop 022 and the vn Estate to e - Scoping 2023 and Da ace of a Con 023 and be sideration in anisation ag ion process' anisation pro on?	ping Report will be submitted to the Planning e Round 4 Plan Level HRA has recently been BEIS.  Report to be submitted in July 2022, PEIR DCO submission November 2023. The design munity Alternatives Consultation in fore PEIR.  In this meeting –  gree with the decision-making process used in	AB
3.	ongoing as part of the discussion with Nation design) and potential will be published by No Initially four potential Based on draft inform traditional radial design process.  Site Selection Process The array areas were Leasing Round 4 procidentified using a GIS-identified for each infinite before further refinential designs and the sign of	Network Dee offshore Thal Grid ESC coordinated ational Grid gird connectation providing at Creyke and Metholidentified as tess. Landfalbased constructure thents resulted	esign Process - National Grid ESO work is transmission Network Review. RWE are in pregarding a traditional connection (radial disolutions. The Holistic Network Design process ESO in summer 2022.  It ions were provided by National Grid ESO. It is dead by National Grid ESO, RWE has assumed a sea Beck for the purpose of the site selection and It is part of the Crown Estate's Offshore Wind It, substation and the cable routes have been straints mapping exercise. Areas of Search were element and then longlists of options developed and in the shortlists. Comparative Black-Redits have been used to appraise options from an	HC



	<ul> <li>and avoiding direct impacts to designated sites, where possible.</li> <li>Longlist Development - Constraints within the offshore search areas include:         <ul> <li>Northern Endurance</li> <li>Hornsea FOUR offshore windfarm</li> </ul> </li> </ul>	
J.	Area of Search – The offshore cable corridor area of search was defined by joining the array areas to the landfall area of search. Offshore cable corridors were developed in parallel with the landfall options and there is an important feedback loop between work on both of these sections. 2km wide cable corridors were identified within the area of search in line with a set of design principles which included reducing the number of crossings, reducing overall cable length	
5.	onshore Cable Corridor	DB
	Landfall 1 provides a co-location with National Grid's Scotland England Green Link 2 project and shorter offshore cable corridors.  Landfalls 8/9 are just outside of the Holderness Inshore MCZ and provide shorter	
	The shortlisted landfall options are Landfall 1 and Landfalls 8/9.	
	The shortlist was further refined after investigation into co-location opportunities with Hornsea FOUR and Dogger Bank A&B offshore windfarms. As both of these projects are further along the development process it was decided that co-location would be difficult and therefore these landfall options should be dropped.	
	Shortlist - Seven landfalls were included in the short list, all of which were feasible from an engineering perspective, several offered co-location opportunities with other projects.	
	Longlist Refinement – Environmental and engineering BRAG assessments were undertaken on the longlist and options dropped due to space limitations. An additional review identified the most preferable landfalls, those that were least preferable with viable alternatives nearby were dropped. Other options were dropped as a result of offshore cable corridors being removed from the process.	
	Longlist Development – Potential landfalls were identified that avoided areas with substantial infrastructure and avoided areas with a cliff height above 20m. A first refinement removed areas with a cliff height above 15m to ensure engineering feasibility.	
	Area of Search – the area of search for landfall stretched from Bridlington to Dimlington Gas Terminal and was based on the location of the array areas and potential onshore grid connection points. The area north of Bridlington was discounted as cliff heights were considered too high. The Flamborough Head and Filey Coast SPA and Flamborough Head SAC were also avoided. The area south of Dimlington Gas Terminal was discounted due to the high number of pipeline crossings that would be required.	
4.	Landfall	DB
	A summary of the onshore and offshore environmental constraints and engineering constraints that have been considered was presented.	
	Benefits of the Site Selection Process - The site selection process looks to avoid and minimise impacts from the outset by avoiding constraints, embedding mitigation and co-location infrastructure where possible.	
	environmental and engineering perspective to reach short-lists for each infrastructure element.	



- Bedforms between Northern Endurance and Hornsea FOUR
- Pinch point between Hornsea FOUR and Hornsea TWO
- Existing oil and gas infrastructure
- Holderness Inshore and Holderness Offshore MCZs
- Existing and planned infrastructure (Hornsea FOUR/Dogger Bank A&B/SEGL2)
- Information on less favourable areas of seabed (provided by the Dogger Bank A&B project)

The longlist was developed with these constraints in mind and was reviewed by engineers, who provided geotechnical input. Funnels were included around the array areas to allow flexibility in the location of the offshore substations.

As the landfall site selection work progressed and options were dropped a feedback loop allowed offshore cable routes to be dropped as they were no longer required.

Shortlisting – Once the landfall shortlist had been defined the remaining offshore cable corridors were reviewed. Adjustments were made to identify options which provided the shortest route to the Dogger Bank South East array area and options that minimised the environmental impact to the Dogger Bank SAC. These adjustments resulted in a new 'fan' area at the array sites to provide flexibility.

Next Steps - A low spec geophysical survey will be undertaken (starting June 2022) on the shortlisted options to assess feasibility. The feedback loop between landfall and offshore cable corridor work will continue to operate. Any outcomes from this ETG consultation will be considered.

#### **Questions and Discussion**

DB asked if anyone had an opinion on what is preferential – impacting the Smithic Bank Annex I Sandbank or the Holderness Inshore MCZ (although noting this question may be more relevant for Natural England/MMO/The Wildlife Trusts who are not on the call at this time).

North Eastern IFCA) – Would defer to Nature England on this issue but asked if the Flambourgh Head reef would be impacted.

DB – Confirmed that the offshore cable route currently avoids the Flamborough Head SAC and the reef, however, the survey information would provide more detail in terms of the extent of the reef outside the boundary of the SAC if this option is taken forward.

Yorkshire Wildlife Trust) – The reef feature shown in the Natural England data set may not necessarily show the full extent so a review of survey information will be required to understand the full extent/potential impacts.

BL - The timing of the survey work will need to consider cetaceans in the area.

DB – Confirmed the issue of cetaceans and surveys seasons would be discussed with Natural England.

TS – Asked if consultation with the fishing industry had been undertaken

DB - There has been no direct feedback from the fishing industry on site selection however consultation on the Projects as a whole has started. Historical information indicates that the southern part of the offshore search area is less favourable for the siting of cables from a fishing perspective.

Historic England) – Asked if the projects had commissioned archaeology interpretation/analysis of the geophysical data being collected from June.



	DB - Confirmed that Wessex Archaeology will be undertaking the interpretation/analysis of the geophysical data.	
6.	Onshore Substation	JF
·	Area of Search – The initial area of search for onshore substations was defined using an indicative location for the grid connection point provided by National Grid ESO. A 3km search area was drawn to minimise the length between the onshore substation and the grid connection point which will help to mitigate transmission losses and minimise adverse effects on economic efficiency. The initial area of search was refined to:	31
	<ul> <li>Where possible avoid residential properties</li> <li>Where possible avoid housing land allocations</li> <li>Reduce impacts to designated sites</li> <li>Avoid mature and historic woodland</li> <li>Where possible avoid Flood Zone 3</li> <li>Reduce impacts to the local Important Landscape Area</li> <li>Avoid Cottingham Parks Golf Club (protected open space)</li> </ul>	
	Development of Longlist – substation zones were identified that would be big enough to accommodate the minimum footprint scenario (one HVDC converter station (200 x 180m) and a construction compound (250 x 150m)) while considering constraints including existing infrastructure, heritage and landscape designations and ancient woodland.	
	Refinement of the Longlist – Zone 8 was removed as it was too small to accommodate the maximum footprint scenario and the onward routeing would require crossing existing electrical infrastructure. Zone 2 was removed due to its proximity to residential properties and the presence of a high pressure ethylene pipeline.	
	Development of the Shortlist – the remaining 7 zones were visited by a Landscape and Visual Impact team, the engineering team, the consents team and the lands team. In addition further information on planned infrastructure projects was gathered (Hornsea FOUR, Jocks Lodge Road improvement scheme and Creyke Beck Solar Farm). Zone 3 was removed due to a conflict with the Creyke Beck Solar Farm and Hornsea FOUR substation. Zone 7 was removed due to potential landscape and visual impacts on the proposed AONB. Zone 9 was removed due to its proximity to Woodmansey and the onward routeing requiring a crossing of the railway. Zones 5 and 6 were refined to minimise potential landscape and heritage setting impacts. Four substation zones were included in the short list,	
	Next Steps - Outcomes of this consultation and ecology survey data will be reviewed. The substation zones will be optimised to ensure infrastructure is placed in the best location within the zone.	
	PM/JF – Utilities data is currently being reviewed to develop options for linking the onshore cable corridors to the substation and the substation to the grid connection point. The area is very constrained by existing and planned infrastructure. This may limit onward routeing options and therefore rule out substation zones.	
	Questions and discussion	
	ERYC) - The views of zone 1 to and from Beverley Minster will onsideration if that zone is selected.	



MS – There is a high interest in this area from solar farm developers, there are many projects that are likely to come to fruition before this project gets off the ground. Although not yet in the public domain the council has been approached by a solar farm developer regarding the land around Zone 1 in recent weeks.

(Yorkshire Wildlife Trust) – Please provide GIS layers so the Yorkshire Wildlife Trust can use with their data sets to identify possible constraints.

VR - Asked if there were any thoughts / comments on Zones 4/5/6 which are located in the Important Landscape Area.

MS - Are there any details of building heights?

VR/PM – Building height is currently a work in progress, however it is likely to be around 20m

MS – building height is fundamental to understanding impacts. While the Important Landscape Area is not nationally designated it is locally very sensitive and there is a desire to protect it.

VR - Would stakeholders have retained the option near Woodmansey or are there any areas that have been missed that should be considered?

MS – Difficult to say at the moment, it is a very constrained area and all options likely to have constraints. It is good that there are options, and keen to continue discussions.

#### 7. Onshore Cable Corridor

he as **VR** 

Area of Search – Developed by connecting the landfall area of search with the onshore substation area of search. The area was refined to avoid urban areas and provide options to the west on the Hornsea FOUR onshore cable.

Constraints Mapping - Constraints mapping was undertaken. Layers included:

- Water resources and flood risk maps from the Environment Agency
- Heritage layers including Scheduled Monuments and Registered Parks and Gardens
- Designations from Natural England and Local Councils
- Existing and planned infrastructure
- Road crossings
- National Grid overhead lines and high pressure gas pipelines
- Local planning applications
- Land use (including woodland, source protection zones and landfill)
- Local plan information for the local councils

Development of the Longlist – 1km cable corridor options were identified to link the landfall options to the onshore substation area of search. Pinch points were identified by Wardell Armstrong at former sand and gravel pits, options that routed through this area were removed due to the engineering risk associated with potential HDD through this area. As the landfall site selection work progressed and options were dropped a feedback loop allowed onshore cable routes to be dropped as they were no longer required. Additional spurs were added around the substation zone and details of additional constraints came to light.

Development of the Shortlist – PM provided an overview of key engineering pinch point. The ones at Wandsford (flood risk/requirement for 24-hour working) and at the A1147 crossing (high pressure pipelines) were discounted. Routes through a congested point to the east of the substation zone were recommended for removal by Wardell Armstrong but have been retained to provide optionality.



	the two options running from the shortlisted landfall options. The western option was removed due to an engineering pinch point at Greengrass Caravan Park and an environmental pinch point at the Levan Canal SSSI.  Questions and Discussion  VR - Pinch Points at Substation Zone - Due to the length of the cable route, it would not be possible to use trenchless technology across the whole of Figham Common (if this route is required).  (ERYC) - Figham Common, especially the north/east is very wet and therefore summer working is likely to be required. The land does get drier towards the west of the common.  (Environment Agency) - seconded the point about how wet the land at Figham Common is.  VG - would the intention be to use trenchless technology to cross the Barmston Drain as this is lower than the River Hull?  PM - It would be the projects preference to use trenchless technology to cross the River Hull and the Barmston Drain, however further investigation is required. It may be possible to cross both watercourses using one trenchless crossing but this will also require further investigation.  - Will all main rivers be crossed using trenchless technology?  PM - It is too early at this stage to confirm but the preference would be to cross rivers using trenchless technology.	
8.	Summary / AoB/ Next Steps / Summary of Action  HC - the preferred option ensures engineering feasibility while providing optionality to avoid constraints.  HC - Summary - we would welcome further comments or information on constraints, if this can be provided by the 18th May. Scoping will provide more details in July 2022.  Questions and Discussion  RJ - Do the cable routes interact with the historic landfill near Hornsea Mere? These are potential dilute and disperse landfills and there is groundwater flow west to east that may lead to contaminated ground.  LB - The historic landfills have been avoided, however, the project will investigate the groundwater flow further.  EM - How will cumulative impacts be considered, as this is a very constrained area?  HC - The Scoping Report (due July 2022) will provide more information on this, however consultation will take place further down the line to discussion which projects should be included in the Cumulative Impact Assessment that will be presented in the PEIR/ES.  GW - What is the lifespan of the planned infrastructure?  AB - Assumption 25 years  HC - Coastal erosion rates (from the Shoreline Management Plans) and future flood risk are being considered as part of the assessments and site selection work.	HC
Action ID	Action	Owner



1.	Share GIS files with Yorkshire Wildlife Trust, Environment Agency and East Riding of Yorkshire.	JF/LB
2.	Provide any written response or additional information by Wednesday 18 <sup>th</sup> May. If no additional information is being provided by your organisation, please let Jess Furlong know.	All



# **Minutes of Meeting**

Benthic / Marine Physical Processes Method Statement Expert Topic Group Meeting					
Document Number: PC2340-RHD-ZZ-ZZ-MI-Z-0019					
Meeting with:		Dogger Bank South Expert Topic Groups			
Location:		Microsoft Teams Meeting			
Start Time of Meeting:	9am	Date of Meeting: Thursday 26 <sup>th</sup> May 2022			
Attendees	Initials	Role & Organisation			
	DB	Offshore	e Consent Manager, RWE		
	AC	Offshore	e Consent Manager, RWE		
	JM	Seni	or Geophysicist, RWE		
	HC	Offshore L	ead, Royal HaskoningDHV		
	LB	Benthic Le	ead, Royal HaskoningDHV		
	DBr	Marine Physical Pro	ocesses Lead, Royal HaskoningDHV		
	CC	Offshore Su	pport, Royal HaskoningDHV		
	EB	Marine Lea	ıd Advisor , Natural England		
	YF	Marine Lea	ad Advisor, Natural England		
	RF	Marine Lea	ad Advisor, Natural England		
	PC		Natural England		
	ET	Offshore	e Industry Advisor, JNCC		
	NP		e Industry Advisor, JNCC		
	SA		tal Scientific Officer, NEIFCA		
	JS	Marine Lice	ensing Case Manager, MMO		
	KW	Marine Lic	censing Case Officer, MMO		
	AC		nvironment Agency		
	OB		aries Lead, Environment Agency		
	JE		Technical Advisor, Cefas		
	IB		Processes Scientist, Cefas		
Apologies	Initials	Ro	ole & Organisation		
	TS	NEIFCA			
	CP		Wildlife Trusts		
Meeting Agenda/ Objective(s):		<ul> <li>Presentation of the benthic survey campaign methodology</li> <li>Presentation of the marine physical processes assessment methodology</li> <li>Agreement on methodology for both aspects of discussion</li> </ul>			



Item	Description/ Discussion	Presenter
1.	Welcome and Introduction  HC introduced the Dogger Bank South Project team and attendees	HC
	HC explained the agenda and aims of the meeting	
2.	Project Update	HC
	Project Background – an overview of the Dogger Bank South East and Dogger Bank South West projects	
	Current Status – an updated Scoping Report will be submitted to the Planning Inspectorate in July 2022 and the Round 4 Plan Level HRA has recently been submitted by the Crown Estate to BEIS.	
	Indicative Programme – Scoping Report to be submitted in July 2022, PEIR submission February 2023 and DCO submission November 2023. The design will be frozen in advance of a Community Alternatives Consultation in August/September 2023 and before PEIR.	
	Key questions for consideration in this meeting -	
	Does your organisation agree with the survey methodology for the benthic survey campaign?  Does your organisation agree with the survey methodology for the benthic survey campaign?	
	<ul> <li>Does your organisation agree with the approach to assessing potential impacts on marine physical processes?</li> <li>Can your organisation provide any further information to help with assessment of benthic ecology / marine physical processes?</li> </ul>	
3.	Benthic Survey Method Statement	LB
	Background – Summary of the baseline benthic environmental conditions within the survey area.	
	Survey Planning and Design (Geophysical Survey) – The geophysical surveys commencing prior to the benthic survey will seek 100% coverage of the survey areas. Outputs of this survey will help to inform the final locations of the benthic and contaminant samples where information is available in sufficient time, as well as informing the broadscale habitat mapping.	
	Survey Planning and Design (Drop Down Video) – Description of the drop down video technical characteristics and methodology for its use. The number and location of DDV transects will be determined based on a review of the geophysical survey data, where available, as well as any areas determined as being of interest that may not be covered by the geophysical survey at the time of review.	
	Survey Planning and Design (Grab Sampling) – Description of the sampling grid created to detail where grab samples will be taken. Adapted from the Cooper et al. 2021 methodology.	
	Survey Planning and Design (Epibenthic Trawling) – Description of the approach taken to identify where epibenthic trawls will be undertaken. The epibenthic trawls will be a mixture of bottom trawls and DDV trawls (depending on known presence	



of sensitive features as identified from the geophysical survey data) and also if the trawl is within the Dogaer Bank SAC (due to the ban on bottom trawling within it. Total of 24 trawl locations identified at present. Post-meeting note: dispensation to perform epibenthic trawls within the Dogger Bank SAC has been applied for. Assuming it is forthcoming trawls will be undertaken within the SAC where appropriate. Presentation of the survey area and proposed sampling locations - Noted that only the preferred export cable route will be surveyed, image shown during the presentation retains multiple potential options for the export cable route, site selection process ongoing. Survey Planning and Design (Laboratory Analysis) - Description of the lab analysis techniques proposed to be utilised based on the collected data from the survey. Post-meeting note: For clarity contaminants sample analysis is to be undertaken by an MMO validated lab. Particle Size Distribution analysis is to be undertaken by an NMBAQC participating lab. Agreement with the acceptability of these proposals would be appreciated. Reporting – Summary of the reporting that will result from the benthic survey campaign. **Questions and Discussion** JE - Already some wind farms in the Dogger Bank, coming into the same landfall point, how much data sharing will there be between the developers? HC - Dogger Bank A and B come into the north of the most southerly DBS option, with Hornsea FOUR proposed landfall just north of those. Publicly available info will be used were available. DB - No further conversations with other developers outside of using publicly available info. Northerly cable option runs close with the Doager Bank A and B along much of its distance. Likely would not be seeking to share further data as we don't necessarily cover the same area. SA - Epibenthic trawls would need a dispensation from NEIFCA. Can the Projects send over application forms for this if not started already. DB - This is being worked on, will be sent over to NEIFCA shortly. **Post-meeting** note: this submission is planned for 27/5/22 JE - Confirmation of review of the method statement and that it all looks straightforward and correct as per the required guidelines. **Marine Physical Processes Method Statement** DBr Survey Planning and Design (Geophysical and Metocean Surveys) - Description of the survey techniques utilised for the geophysical and metocean surveys. Using the Existing Dogger Bank Modelling to Support the Conceptual Approach -Critical element of the proposed approach is that we will not be doing any

bespoke modelling, as there is already a significant existing evidence base from

4.



previous projects on Dogger Bank. The approach has been justified in the method statement by comparing its physical characteristics with those of the other wind farms.

Baseline Environment & Array Physical Comparison – A summary of the baseline conditions of bathymetry, tidal currents, waves, seabed sediment and suspended sediment across the Dogger Bank South array areas in conjunction with the baseline conditions for Dogger Bank A, B, C and Sofia.

Bathymetry very similar across all six sites. Tidal currents flow in similar directions and at similar velocities on the flood and ebb tides. Predominant waves approach all sites from similar directions. Seabed sediment predominantly slightly gravelly sand, gravelly sand or sand across all the projects. Very little fine sediment. Average suspended sediment concentrations are low across all sites.

Previous Modelling – Description of previous modelling undertaken for other offshore wind farm projects within the Dogger Bank. Previous modelling for other projects was conservative compared to what is being planned for Dogger Bank South.

Export Cable Physical Comparison – Cable corridor will cross similar areas and reach similar landfalls to other projects already modelled in the area.

Assessment Methodology - Predicated on a Source-Pathway-Receptor conceptual model supported by the previous conservative worst case modelling for previous projects on Dogger Bank

Potential Impacts During Construction, Operation, and Decommissioning, and Cumulative Impacts – Description of the impacts on waves, tidal currents, bedload sediments and suspended sediments typically assessed during the various phases of the projects lifespan and potential cumulative impacts with other nearby projects.

## **Questions and Discussion**

OB – Initial EA thinking, approach looks sensible, pleased to see that the coastal assessment is a key element. Use of the existing models seems reasonable. EA will need to have access to those models to help inform its assessment. In the statement so far the decommissioning concerns the array areas. Would be good to understand if there will be any residual structures left in the coastal area.

DBr – Coastal setting is key, a greater likelihood of change at the coast. Will be developing a conceptual model for the coast. This has already been created for Dogger Bank A and B, and having worked in the Holderness area multiple times, we can develop a robust conceptual model.

OB - Interested to see how the erosion rates will be applied to the model.

DBr - Will use the historical erosion rates which will be extrapolated into the future using expert geomorphological assessment.

DB - Residual structures is a point to take away for the project.



	DBr – Would be useful to get confirmation that the conceptual modelling approach is good to take forward.  YF – Would need to see how the existing data are applicable to the DBS sites, and in the differences in the layouts of the existing sites and the new DBS site.  DBr – The detail will be provided in the assessment, confident that the layouts used for the other projects in comparison to the planned DBS layouts are conservative.  YF – Want to see if the realistic worst case scenarios for previous sites are appropriate to DBS.  IB – Agree with what Yolanda said, if there was potential for cumulative impacts from the other projects further modelling may be needed, or further explanation on how the conceptual modelling covers off potential cumulative impacts.  DBr – Appreciate that you would like to see the conceptual approach justified in relation to all 6 sites from the cumulative impacts perspective.  YF – In terms of the DBS locations, will we be considering the effects of the project on seasonal stratification in regard to the Flamborough Front.  DBr – Yes we have been thinking about this for other wind farm sites in the area. It will form part of the impact assessment for DBS in relation to potential disturbance of the seasonal (summer) stratification.	
5.	AoB  JE - Cefas have already submitted comments on the Benthic Method Statement	
	to the MMO, which remain valid following this meeting. Can receipt of the response be confirmed?	
	CC - Yes we received this thank you.	



# **Minutes of Meeting**

Site Selection Expert Topic Group Meeting – MMO/Natural England						
	Document Number: 004561861-01					
Me	Meeting with: Dogger Bank South Expert Topic Groups					
Location: Teams						
Start T	ime of Meeting:	2pm	<b>Date of Meeting:</b> Monday 26 <sup>th</sup> September		ber 2022	
A	Attendees	Initials	Ro	ole & Organisation		
		AB	Onshore Con	sents Lead, RWE Renewa	bles	
		RH	Onshore L	ead, Royal HaskoningDH	V	
		JF	Assistant Project	Manager, Royal Haskoni	ngDHV	
		CM	Land Quality	Lead, Royal HaskoningD	HV	
		PM	Engine	eer, Wardell Armstrong		
		RF	Acting Cas	se Officer, Natural England	d	
		EJ	Marine Lea	ıd Advisor, Natural Englar	nd	
		SW	Senior Adviser	of the Coast, Natural Eng	gland	
		EB		pecialist, Natural England		
		BT	Coastal Lea	ad Advisor, Natural Englar	nd	
		NM	Coastal Engineer, East Riding of Yorkshire Council			
		RJ	Sustainable Development, East Riding of Yorkshire Counc			
		MS		ficer, East Riding of Yorks		
Meeting Ag	genda/ Objective(s):	1 1	unity to share informatic Site close to the preferr	on about the SSSI and Loc red landfall locations.	al	
Item		Desc	ription/ Discussion		Presenter	
1.	Welcome and Introdu JF introduced the Dog		outh Project team and c	ıttendees	JF	
2.	Project Details				AB/RH	
	Project Background - Bank South West proj		v of the Dogger Bank So	uth East and Dogger		
	Site Selection Process – an iterative site selection process has been used to identify the preferred options for each element of infrastructure. Engineering, environmental and planning constraints have been taken into account.					
	Current Status – a Scoping Opinion has been received from the Planning Inspectorate earlier in September and a public consultation has been launched which will run from 9 <sup>th</sup> September to 14 <sup>th</sup> October.					
			currently running an Int DCO submission Februa	roductory Consultation, ry 2024.		
3.	Geological Sites				JF	



	Preferred landfalls – initially 28 landfalls were identified within the landfall area of search. 26 of these options have been discounted for a range of environmental and engineering reasons. Two landfall options remain in the process, close to Skipsea.	
4.	Withow Gap, Skipsea SSSI	СМ
	This site was formed where Mere Deposits filled a hollow in the Skipsea Till, It is a well-documented site, with regular monitoring taking place pre-COVID.	
	Summary of discussion	
	EB - As well as being an important site for geology this site is also important for archaeology (and the archaeological potential may not be limited to the mapped deposits but may also be present in other areas).	
	EB - The site is finite in extent and unique as a SSSI as it provides a cross section of the mere without the need for intrusive work. While the soft deposits are easily erodible this does mean it can be viewed readily from the beach. It is a relatively shallow site. The site is sensitive to construction activities in terms of removing material, reducing access and disturbing material. The sensitivity will expand beyond the limits of the SSSI as the deposits could dry out. The site will be lost in time as a result of the ongoing coastal erosion.	
	SW - The site is one of two SSSI's on this stretch of coast, it would be a shame to work in this area when there are other options available.	
	RJ - The drain ditch which runs through the centre includes a permissive footpath which has become a de facto beach access. This has been reprofiled in recent years and is regularly used by walkers and quad bikes. This has been reported to Natural England.	
	There is a Marine Conservation Zone offshore, this has been addressed in other meetings with Natural England and the council.	
	Engineering work is ongoing to determine what may be possible in terms of an engineering solution around this site. This work will take into account the lateral extent and depth of the feature, excavation and potential dewatering at the Transition Joint Bay site (set further back from the cliff), and contingency options for breakout.	
	<u>Actions</u>	
	RHDHV to share the resources used to date. Natural England and East Riding of Yorkshire Council to compare with their available data sources and share any missing resources.	
	East Riding of Yorkshire Council to provide details of coastal erosion rates and beach profiles (PM to send a request of what is required from an engineering perspective).	
	RJ to provide recent photography of the site.	
5.	Skipsea Drain Local Geological Site	СМ
	Less information is available on this site. The site is marked on the draft Local Plan but there is limited detail and nothing within the local geological groups records which are freely accessible on line.	
	EB - A working hypothesis would be that this is related to the Skipsea Bail Mere. It is likely an infilled glacial tunnel valley. A literature review of the information available on the Mere should provide more information.	
	Note this site is also likely to be important for archaeology as well as geology.	



	Actions RHDHV to contact the local geological groups to see if any additional information is available. RHDHV to complete a literature review of the information available on Skipsea Bail Mere. RHDHV to share the sources used in literature review. Natural England and East Riding of Yorkshire Council to compare with their available data sources and share any missing resources. Wardell Armstrong/RHDHV to discuss what investigation would be required to confirm lateral extent and depth of the site.	
6.	AoB RF - What would the zone of influence be for an indirect impact to the SSSI? A - This cannot be confirmed at the stage, further detail would need to be provided on the engineering solution AB - What would be a sensible buffer to apply to the sites? A - This cannot be confirmed at the stage, further detail would need to be provided on the engineering solution. Advice would be to avoid direct impact as far as possible SW - How has coastal erosion been dealt with in the plans? A - Predicated erosion rates used to set the Transition Joint Bay far enough back from the cliff line but balancing with the need to achieve an optimal burial depth.  JF to share how erosion rates have been calculated to date Q - What is the projects life span of the project A - Maximum 50 years, the decommissioning plan is still in development but could include removing cables and ducts or removing cables and leaving ducts in situ	



	Onshore Archaeola	gy and Cul	tural Heritage ETG Mee	ting - Geophysics WSI	
	Docume	nt Number:	PC2340-RHD-ON-ZZ-	MI-Z-0027	
ı	Meeting with:	Dogger Bank South Archaeology and Cultural Heritage Expert Topic Group			
	Location:		Т	eams	
Start	t Time of Meeting:	1pm <b>Date of Meeting:</b> Thursday 20 <sup>th</sup> October 2022			er 2022
	Attendees Initials Role & Organisation		ole & Organisation		
		AB	Onshore Con	sents Lead, RWE Renewa	bles
		LT	Onshore Conse	ents Manager, RWE Renev	vables
		JF	Assistant Project	t Manager, Royal Haskoni	ngDHV
		FB		and Cultural Heritage Teo yal HaskoningDHV	chnical Lead,
		JL	Geophysic	cs Lead, AOC Archaeology	У
		VY	Geoarchaea	logy Lead, AOC Archaeol	ogy
		AH Science Advisor, Historic England			
			Principal Archaeologist, Humber Archaeology Partnership		Partnership
	Apologies		Role & Organisation		
				Historic England	
		KE		Historic England	
		SD	East Riding of Yorkshire Council		
		JG	Humber	Archaeology Partnership	
Meeting <i>I</i>	Agenda/ Objective(s):		Opinion Provide an update Review the program Review the Geophy	project update on the Scoping Report/So on data collection to date mme for collection of date ysics WSI and progress to	e a
Item		Desc	ription/ Discussion		Presenter
1.	Welcome and Introduction  JF introduced the Dogger Bank South Project team and attendees  JF explained the agenda and aims of the meeting			JF	
2.	Project Update  Project Background - an overview of the Dogger Bank South East and Dogger Bank South West projects  Site Selection - an iterative site selection process is underway, preferred options for offshore cable corridors, landfalls, onshore cable corridors and onshore substations have been selected. The project has recently completed an				



	Introductory public consultation on these options. Further refinement will be made to these options before PEIR.	
	Current Status - The Scoping Opinion was received in September 2022 and is currently being reviewed. The Introductory Consultation concluded on 14 <sup>th</sup> October and feedback is currently being reviewed. The design freeze for PEIR is being finalised.	
	Indicative Programme – PEIR will be submitted in Spring 2023 and the DCO will submitted in early 2024. Consultation with stakeholders will be ongoing throughout the programme.	
3.	Scoping Opinion	FB
	The Scoping Report has been seen by all organisations and the Scoping Opinion has been received.	
	The Scoping Report can be viewed for reference on the Planning Inspectorates website - <a href="https://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/dogger-bank-south-offshore-wind-farms/?ipcsection=docs">https://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/dogger-bank-south-offshore-wind-farms/?ipcsection=docs</a>	
	<b>ACTION -</b> RHDHV to provide written responses to all comments on the Scoping Report.	
4.	Data Collection Progress	FB
	A Strategy Document for Onshore Archaeology and Cultural Heritage has been prepared.	
	Air Photo Service Ltd are undertaking the aerial imagery and LiDAR assessment to feed into the archaeology Desk Based Assessment (DBA).	
	RN – Will the aerial photography assessment involve checking all digital sources e.g. historic Google Earth, Esri and Bing imagery? Answer – Yes and all the data backing up with assessment will be included in appendices to the PEIR chapter.	
	AOC Archaeology are progressing the Geoarchaeological DBA and will be deliver this in November 2022. This will include any specific recommendations for alternative methods of geophysical survey.	
	RHDHV will undertake initial targeted walkovers and site visits to support site selection and focus on the substation zones where settings is critical.	
	Data collation for PEIR has begun.	
	<b>ACTION</b> - Share the Strategy Document for Onshore Archaeology and Cultural Heritage.	
5.	Programme	FB
	FB ran through the programme for onshore archaeology and heritage –	



	Timescales	Activity	Detail	
	Ongoing - April 2023	Full onshore archaeological DBA	Including targeted walkovers and initial setting assessment site visits (November 2022)	
	December 2022	Assessment of Aerial Imagery	Including aerial photographic, LiDAR data and historic map regression. To be included as appendix to PEIR	
	November 2022	Geoarchaeological DBA	Including recommendations of evaluation i.e. monitoring of GI and test pitting during trial trenching and alternative methods of geophysical survey	
	October 2022 - ongoing	Geophysical Surveys	Initially planned for 2 Phases, now underway and programme will run through to full as possible coverage	
	March - April 2023	Targeted Trial Trenching	Will inform ES stage	
	April 2023	PEIR submission to PINS	Will include geophysical survey results (as much as possible)	
	April 2023	Engineering led GI Works	Scope of Geoarchaeological / Archaeological monitoring to be agreed with ETG following GDBA results	
	Feb 2024	DCO submission to PINS		
	aim is to br any key are identified be be designe likely be sta The location RN - does there is alra targeting t	ring forward in the progens of dense/complex of geophysical survey. The toprovide as much control of the trenches will be not favour a great deal eady good knowledge of	ant by targeted trial trenching? Answer -The tramme key areas of project infrastructure are archaeology or archaeologically "blank areas the remaining programme of trial trenching voverage of the route as possible too, this will entinued post-application/submission of the eagreed in consultation with the stakeholder of targeting geophysical anomalies where of what is there, there would be more interest also be including blank areas, but will also be takeholders.	vill ES. s.
6.	Geophysic	al Survey WSI		FB
	FB covered the survey objectives and general approach as outlined in the WSI.			
	950 hectares have been identified for the Phase 1 priority survey, which has the potential to be refined as the site selection process progresses.			ie
	methods o WSI and al Gradiomet	f survey if required. The so be included in the re	ative approach to potential alternative e outline approach will be incorporated into the commendations in the geoarchaeological DE well but if alternative methods such as LFEM, Il be implemented.	BA.
	detailed m deposits. T and are wo	agnetometry has provi here are a number of p orking to improve the cu	a which have been surveyed in recent years the ded good results even in areas of alluvial eople in the AOC team who specialise in soils arrent survey portfolio. The geophysics and closely together throughout the process.	
	AH/RN - Agreed with the iterative approach to geophysical surveys.			
		RHDHV/AOC to update other possible techniqu	e the WSI to include the additional informationes.	n
	ACTION - data is avo	RHDHV/AOC to arrang iilable on what blank ar	ge opportunities for further discussions once eas should be considered further and use loc and which areas might need further scrutiny.	al
7.	Geophysic	s Priority Areas		FB
	FB provide WSI.	the rationale for the se	election of the priority areas as set out in the	



	JL shared the data for the first area which has been surveyed PA17 (surveyed first due to favourable land access). Features identified include potential medieval ridge and furrow systems, potential medieval field boundaries and settlement, potential palaeochannel or trackway, potential dyke system, potential trackways and enclosures, pits which could be remnants of settlements.	
	RN – this data is what you would expect to find.	
	FB - provided a full review of the reasons for selecting all of the other priority areas. For further information see paragraph 32 and Appendix 1 Table 1 of the WSI.	
	RN - Suggested checking the CITiZAN database as it is not integrated into the HER.	
	ACTION - RHDHV to review CITiZAN database	
8.	АОВ	
	RN – Humber HER do not provide event numbers	
	ACTION - RHDHV to amend the WSI accordingly	
	RN - Could the shapefiles be provided?	
	<b>ACTION</b> – RWE to share the project red line boundary once the PEIR design freeze is finalised, AOC to share the results of the geophysics data on a rolling basis as they become available.	



Traffic and Transport Nov 22 ETG – Hull City Council and National Highways					
Document Number: PC2340-RHD-ON-ZZ-MI-Z-0028					
Meeting with:	Hull City Council and National Highways				
Location:		Т	eams		
Start Time of Meeting:	14:30	Date of Meeting:	21/11/2022		
Attendees	Initials	Ro	ole & Organisation		
	ST	Transport Planne	r at Royal HaskoningDHV (RHDHV)		
	СВ	Trans	port Planner at RHDHV		
	JF	Proje	ct Manager at RHDHV		
	RH	Project Manager at RHDHV			
	PR	Highways Manager for development and control at Hull City Council (HCC)			
	SM	Town Planner at HCC			
	DW	Air (	Quality Officer at HCC		
	AB	Onshor	e Consents Lead at RWE		
	SB	Observe	r from National Highways (NH)		
	LT	Onshore	Consents Manager at RWE		
	SG	Assista	nt Spatial Planner at NH		
Apologies	Initials	Ro	ole & Organisation		
	AM		RWE		
Meeting Agenda/ Objective(s):	The objective of the meeting is to provide highways stakeholders with and update on the Projects and discuss the proposed approach to the traffic and transport assessment.				

Item	Description/ Discussion	Presenter
1.	Welcome and Introduction	ST
	ST provides a brief introduction and all members introduce themselves.	
	ST clarifies that a separate meeting will be held with ERYC noting that the Projects are within their area.	
	ST clarifies that the meeting is in relation to traffic matters and that separate engagement will be held with HCC in regard to air quality.	
	Action 1 – RHDHV to engage HCC to discuss air quality.	
2.	Project Update	LT
	LT introduces the Projects and provides a update.	
	SG Will this connect to the Humber low carbon pipeline? LT, no it wont	
3.	Study Area	ST



Item	Description/ Discussion	Presenter
	ST presents the proposed traffic and transport study area and asks if HCC and NH had any comments or additional roads that should be included? ST noted that the study area had been developed assuming that the majority of HGV deliveries could originate from the A63/A1033 via Strategic Road Network (SRN) and the ports of Hull.  PR confirmed that the study area seemed to include the key roads but requested	
	that the A1033 be extended east to encompass the Northern Gateway. ST agreed that the study area would be extended east along the A1033 to the Northern Gateway.	
4.	Potential Construction Impacts	ST
	ST presented the proposed list of impacts to be assessed and asked for comments.	
	SG noted NH would not like to see transformers travel along the SRN from inland, i.e. via the M62 direction. ST confirmed that an abnormal load assessment has been commissioned and this will look at the use of the nearest possible ports in Hull in line with policy.	
5.	Potential Construction Impacts	ST
	SG identified the need for a Construction Traffic Management Plan (CTMP) and for the CTMP to include measures to manage abnormal loads. ST confirmed that an outline CTMP will be submitted with the DCO application and it will include measures to manage abnormal load movements.	
6.	Potential Construction Impacts	ST
	PR noted that there are quite a lot of schemes coming through the area and they might impact upon the availability of labour. ST confirmed that a socio economics study is being prepared that should consider this issue.	
	Action 2 – RHDHV to advise socio economics consultants of these concerns.	
7.	Potential Construction Impacts	ST
	PR raised concerns with the use of the GEART [Guidelines for the Environmental Assessment of Road Traffic] Rule 1 and 2 thresholds in the assessment driver delay (junction capacity).	
	ST, clarified that GEART will be used to inform the consideration of Severance and Amenity impacts but will not be used in the assessment of driver delay (capacity).	
8.	Potential Construction Impacts (Driver delay)	ST
	ST asked if HCC and NH could confirm those junctions they had capacity concerns with and where junction modelling may be required?	
	PR noted that it would depend on the demand from the Projects and what hours traffic was impacting.	
	All: Agreed that for PEIR, the traffic numbers and delivery/working hours will be shared. NH and HCC will then review the PEIR and provide details of any capacity assessments that may be required to be submitted with the DCO application.	
	SG noted that post-COVID, the 'traditional' network peak hours have become extended and the capacity assessment may need to look at other hours. Agreed that NH will review proposed traffic flows and working hours (at PEIR) and advise of modelling requirements (junctions and hours).	



Item	Description/ Discussion	Presenter
	SM and PR asked if the capacity modelling would also include consideration of cumulative traffic and committed developments? ST, yes a cumulative impact assessment will be undertaken and presented within the DCO application. TEMPro growth will also be applied to background traffic flows.	
9.	Potential Construction Impacts (air quality)	ST
	PR queried how would the air quality assessment would be undertaken?	
	ST clarified that there needs to be separate engagement with air quality specialist on this, but traffic teams will provide data to the air quality team to undertake their assessment.	
	DW noted that HCC has SPD3 and this needs to be considered in the air quality assessment.	
	Action 3 – RHDHV to advise the air quality team of the SPD3 Policy and request them to engage with HCC.	
10.	Potential Construction Impacts (Highway Safety)	ST
	ST outlined that it is proposed that collision data will be sourced from HCC for the latest five year period. ST sought comments from NH and HCC upon the proposed approach to assessment of highway safety impacts, e.g. should the assessment look at clusters, collision rates, etc?	
	SG noted that NH has used an assessment based on collision rates in the past and this could be used for the Projects assessment.	
	PR asked if the analysis will include the 'COVID years' [i.e. periods where traffic flows were lower due to national lockdowns etc]? ST suggested that it is proposed to yes, noting that nationally there were more collisions with vulnerable road users even though there were lower levels of motor traffic. PR also noted that during the COVID years, traffic speeds increased as there were fewer vehicles and this could have caused more collisions.	
	All: Agreed the road safety assessment should use the latest five years of collision data, inclusive of the 'COVID years' and any noticeable trends in these years will be highlighted.	
	PR noted that as well as considering collision rates, HCC will also require cluster analysis for example where clusters of collisions are occurring at junctions.	
	All: Agreed that the road safety analysis will consider collision rates and collision clusters.	
	ST asked if HCC have an accepted cluster definition? PR advised that he would need to take this away and ask road safety colleagues.	
	Action 4 – PR to provide a definition for a collision cluster, e.g. five or more collisions within five years.	
11.	Potential Construction Impacts (severance and amenity)	ST
	ST outlined that it is proposed to scope in severance and amenity impacts, however, ST queried if the assessment needed to include roads such as the A1033 and A63 where there are few pedestrian and cycle movements?	
	All: Agreed that at this stage, the assessment should include an assessment of severance and amenity for all roads in the study area.	
12.	Potential Operational Impacts	ST



Item	Description/ Discussion	Presenter
	ST outlined that there will be limited operational traffic movements and proposed	
	that this was scoped out of the assessment.  All: Agreed that operational phase could be scoped out of the assessment, but	
	details of likely traffic numbers should be presented in support of this.	
13.	Offshore Impacts	
	ST outlined that the Projects cannot confirm which port(s) will be used for the construction, operation and maintenance of the offshore elements of the Projects. On this basis, similar to Hornsea Four, it would be proposed to scope out of the assessment consideration of onshore traffic movements associated with offshore construction, operation and maintenance.	
	SB noted concerns with this approach if materials were shipped into Immingham and then transported to Hull and SM noted that it would depends to a certain extent where the components come from.	
	ST clarified that the Projects will not be able to say where these ports are until post consent and suggested that for this reason similar projects have included a DCO Requirement to produce a Port Traffic Management Plan (PTMP) once the port(s) are known. ST, asked if this approach would provide NH and HCC with confidence that this phase can be scoped out?	
	All: Agreed to this approach subject to approval of wording for a PTMP Requirement.	
	Action 5 – RHDHV to issue an example of PTMP Requirement wording and NH and HCC to provide comments.	
14.	Potential Decommissioning Impacts	ST
	ST outlined that it would not be proposed to undertake a separate decommissioning phase assessment and instead note that impacts would be no greater than construction.	
	All: agreed no separate assessment would be required.	
15.	Data Collection	ST
	ST outlined that baseline daily traffic counts are being collected using DfT data and ATCs.	
	ST asked if the use of neutral period data was acceptable (i.e. without seasonality)?	
	All: Agreed that the assessment should utilise data collected during neutral months. PM clarified that turning counts should capture peak hours but the counts should be undertaken during neutral months.	
	ST agreed that the turning counts would be undertaken (post PEIR) once NH and HCC confirm those junctions that will need to be assessed.	
	PR noted that there is a difference in the study area between the largely rural northern ERYC area and the more urban HCC southern extents.	
	All: Agreed to use TEMPro Hull Urban growth factors for roads in HCC administration area and separate ERYC growth factors for other roads. For any junctions on the border, separate agreements will be reached at a later date (once junctions are identified).	
16.	DCO Documents	ST
	<u>I</u>	l



Item	Description/ Discussion	Presenter
	ST presented the list of proposed DCO documents (ES Traffic Chapter, Transport Assessment, Abnormal Load Study and CTMP) and asked if additional documents may be required?	
	All: Agreed that the list was appropriate and that a separate Construction Travel Plan would not be required as long as workers were included within the outline CTMP.	
17.	AOB	ST
	ST asked if there was any other business?	
	SB asked that the PEIR set out the number of abnormal loads. ST agreed that this can be included.	
	SM raised concerns that in the past, DCO documents specified that only the highway authority where the project is located are consulted despite the traffic impacting upon a neighbouring authority.	
	All: Agreed that the DCO wording should include all 'highway authorities' where appropriate.	
	SB noted that their lawyers have asked that all legal powers be included in DCO [Protective Provisions].	
	Action 6 – RWE to speak to their lawyers and ask that the draft DCO wording includes Protective Provisions and a requirement to agree relevant plans with the highway authorities (ERYC, HCC and NH).	
	SB and PR requested that data is provided whenever it is available and not all at once to allow it to be agreed as the Projects progress.	
	SG requested copies of the meeting slides.	
	Action 7 – ST to issue meeting minutes and copies of the slide pack.	
18.	Next Steps	ST
	All: agreed that going forward a joint meeting between HCC and NH is appropriate with a separate meeting for ERYC.	



Traffic and Transport Nov 22 ETG – East Riding of Yorkshire Council					
Document Number: PC2340-RHD-ON-ZZ-MI-Z-0029					
Meeting with:		East Riding of Yo	rkshire Council (ERYC)		
Location:	Teams				
Start Time of Meeting:	14:00 Date of Meeting: 23/11/2022				
Attendees	Initials	Role & Organisation			
	ST	Transport Planne	er at Royal HaskoningDHV (RHDHV)		
	СВ	Trans	sport Planner at RHDHV		
	LT	Onshore	Consents Manager at RWE		
	AF Transport Development Manager at ERYC				
	IS Service Manager for Area 3 and maintenance at ERYC		for Area 3 and maintenance at ERYC		
	AA Area 1 Engineer at ERYC		ea 1 Engineer at ERYC		
	TW	Are	ea 5 Manager at ERYC		
	MB	Service	Manager for Area 3 – ERYC		
	AB	Onsho	re Consents Lead at RWE		
	JF	Assistant	Project Manager at RHDHV		
	AM	Land tra	nsactions manager at RWE		
Apologies	Initials	Role & Organisation			
n/a					
Meeting Agenda/ Objective(s):	The objective of the meeting is to provide ERYC with and update on the Projects and discuss the proposed access strategy and approach to the traffic and transport assessment.				

Item	Description/ Discussion	Presenter
1.	Welcome and Introduction  ST provides a brief introduction and a round of introductions  ST clarifies that the Projects have already met with Hull City Council and National Highways to discuss the Projects	ST
2.	Project Update LT introduces the Projects and provides an update	LT



Item	Description/ Discussion	Presenter
3.	Access Strategy – Substation Accesses to Accesses AC15 and AC16	ST
	ST introduces the access strategy for the Projects starting with the Substation zones and working South to North and asked for comments upon locations where ERYC had concerns.	
	ST clarifies that following the previous meeting with ERYC, there are now two substation zones and the Projects have taken onboard ERYC feedback in relation to access to these zones.	
	AF notes that an access off A1079 has already been agreed with Hornsea Four. ST noted that if Hornsea Four is approved and goes ahead, the Projects would seek to use the same access, connecting to the Hornsea Four internal access road. If Hornsea Four is not consented or does not proceed, the Projects could use the same access agreed for Hornsea Four.	
	IS noted that the access from Ings Lane is close to the proposed location for a new household waste centre, this may affect the Projects in the future and there were a lot of objections from the local community. ST agrees to review the planning documents to align access proposals and consider the potential for cumulative effects.	
	AF notes the household waste proposal has been controversial but could have the benefit of a new right turning ghost island.	
	AF, Swinemoor Roundabout nearby is at capacity and potential impacts need to be considered. ST agrees to ensure that capacity assessments are undertaken at this location in support of the DCO application.	
	All: no other issues were noted with the Substation to AC15 and AC16 accesses and crossings.	
4.	Access Strategy – Accesses AC15 and AC16 to AC5	ST
	ST presents next section of cable route and asked for comments upon locations where ERYC had concerns.	
	All: no issues were noted with accesses AC15 and AC16 to AC5.	
5.	Access Strategy – Accesses AC5 to Landfall	ST
	ST presents next section of cable route and asked for comments upon locations where ERYC had concerns.	
	TW Dunnington Lane already takes a lot of HGVs due to an Animal Feed processing plant, the current width is quite limited and could lead to conflicts on the road. ERYC recently resurfaced the road, but it would be worth looking at as it is difficult to maintain.	
	ST mentions the Projects are proposing to use Dunnington Lane to avoid using the more local roads and have captured baseline HGV data. ST commits to reviewing these data and highway condition to understand what mitigation measures would be required to reduce potential for conflict.	
	ST asks if ERYC have a preference for the route to accesses AC1 and 2, B1249 or B1242. ST notes that Allision Lane B1242 was used for Dogger Bank.	
	AA Allision Lane would be potentially better to use as the Dogger Bank project already used this link and still have a mobilisation compound there.	
	AA noted the primary school at Skipsea and that neither route would avoid this. ST, commits to assessing the options further and mitigating accordingly.	



Item	Description/ Discussion			
6.	Project Scenarios	ST		
	ST explains the potential for the Projects to be built in isolation or at the same time (concurrently). ST notes that for the construction of the Projects concurrently, there may be a requirement for each project to have its own access. ST asks if ERYC would be agreeable with this approach subject to ensuring that safe separation distance can be achieved between accesses?			
	TW notes that ERYC would need to understand the forecast levels of traffic first. All: agree to revisit this position once details of traffic flows are available.			
7.	Study area	ST		
	ST presents the indicative traffic and transport study area and asks for comments from ERYC in regard to any additional roads that should be include/excluded?			
	TW advises that the study area is sufficient. However notes that Meaux Lane/Wawne Road should be avoided. ST agrees to remove this road.			
	IS remarks that the A1035 between Leven and Beverley is extremely busy and any road works should be avoided.			
	ST asks if there are other locations where ERYC would expect the Projects to HDD (rather than open cut) under the road?			
	It is advised that the Projects should HDD under all A, B and C class roads.			
8.	Assessment Metrics and Methodology	ST		
	ST presents the proposed impacts to be assessed (driver delay, highway safety, amenity, severance and abnormal loads) and asks if ERYC consider other impacts should be included in the assessment?			
	All: agreed that the list of impacts to be assessed is acceptable.			
	ST asks if there are locations where capacity assessment for driver delay may be required?			
	TW White Cross roundabout should be included and also Swinemoor Roundabout.			
	All: agreed that the Projects will presents details of forecast traffic flows and working hours at PEIR and ERYC will review and confirm those junctions to be modelled for the DCO submission.			
9.	Operational phase impacts	ST		
	ST outlines the proposals to scope out the Projects operational phase impacts noting that there is limited operational traffic demand.			
	AF, agrees with this approach as long as forecast traffic numbers are presented within the ES.			
10.	Offshore impacts	ST		
	ST outlines the proposals to scope out the assessment of the Projects onshore traffic movements associated with the offshore construction, operation and decommissioning phases. ST, notes that this is proposed as the Projects are not able to confirm the location of the base port until post DCO submission.			
	ST, also notes that the Projects have committed to a Requirement to produce a Port Traffic Management Plan (PTMP).			
	All: Agreed to the approach to scoping out offshore impacts subject to the inclusion of a DCO Requirement to produce a PTMP.			



Item	Description/ Discussion	Presenter
11.	Decommissioning impacts  ST introduces the proposed approach to considering decommissioning impacts and propose	ST
	that no detailed assessment is undertaken, noting that impacts would be no greater than construction. AF agrees with this approach.	
	AF notes, that if mitigation measures are implemented [such as road widening/passing places], ERYC would wish to see them constructed to a permanent standard and retained, rather than built to a temporary specification and removed upon completion of the Projects.	
12.	ATC data and seasonality	ST
	ST outlines that traffic data is being collected and asks if data collected during neutral months is acceptable for assessment, or if seasonality should be considered?	
	MB remarks that coastal routes endure more traffic during the summer.	
	AF adds that Swinemoor roundabout blocks back in the summer without fail and should be considered. ST agrees that this will be included for capacity assessment.	
	All: agree that a neutral month is acceptable for assessment purposes but reference should be made to seasonal fluctuations.	
13.	Highway Safety	ST
	ST introduces the approach to the assessment of highway safety and notes that collision data has been collected for the latest five year period. ST outlines the approach agreed with National Highways and Hull City Council to considering collision rates and collision clusters during the latest five year period. ST asks if this approach would also be acceptable to ERYC and if there are any particular local issues to consider?	
	AF agrees with method proposed and considered that clusters and PIC rates are a good metric for analysis.	
14.	DCO documents and other application docs	ST
	ST introduces the proposed documents to be submitted in support of the DCO application (ES Traffic Chapter, Transport Assessment, Abnormal Load Assessment and Outline Construction Traffic Management Plan). ST clarifies that the Outline Construction Traffic Management Plan will include measures to manage construction worker trips.	
	AF agrees with the proposed list of DCO documents.	
15.	AOB and Next Steps	ST
	AF suggests that for the next meeting access plans and mitigation schemes are shared around a table [in person] and worked on collaboratively as with the Dogger Bank project.	
	ST agrees with this approach and propose that the next meeting is in person.	
	AF asks colleagues whether they have heard of any issues with the current Dogger Bank project construction, TW, MB and IS reply that there have been no issues.	
	TW notes that there is also a proposal for a coastal path from Natural England around the proposed landfall location and that this is looked into as it will become a right of way.	
	Action 1: RHDHV to provide detail of the proposed coastal path to the team assessing impacts upon rights of way.	



Landscape and Visual Impact Assessment December 2022 ETG					
Docu	Document Number: PC2340-RHD-ON-ZZ-MI-Z-0030				
Meeting with:	LVIA ETG Group				
Location:	Teams				
Start Time of Meeting:	13:00	Date of Meeting:	13 <sup>th</sup> December 2022		
Attendees	Initials	Ro	le & Organisation		
	JF	Assistant Project	Manager, Royal HaskoningDHV		
	RH	Offshore L	ead, Royal HaskoningDHV		
	LT	Onshore Conse	nts Manager, RWE Renewables		
	AB	Onshore Cons	sents Lead, RWE Renewables		
	PM	Lands	scape Architect, LUC		
	DF	Heritage Cons	sultant, Royal HaskoningDHV		
	MS	Principal Planning Off	icer, East Riding of Yorkshire Council		
	SM	Principal Development	Management Officer, Hull City Council		
	SC	Marine Planning	Archaeologist, Historic England		
Apologies	Initials	Role & Organisation			
N/A	N/A	N/A			
Meeting Agenda/ Objective(s):	LVIA ETG Me	/leeting			

Item	Description/ Discussion	Presenter
1.	Welcome and Introduction	
	All attendees introduced themselves and their role in relation to the projects. Run through of the agenda.	JF
2.	Project Update	
	An introduction to RWE Renewables, an overview of the Dogger Bank South East and Dogger Bank South West projects, the site selection process to date and a summary of the likely infrastructure requirements was provided. The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Programme dates were outlined.	АВ
3.	Landscape and Visual	
	Scope of LVIA – The scope includes the construction and restoration of the onshore cable corridor, the construction and operation of the onshore substations, and onshore views of a potential offshore platform (booster station),	PM



including from the Flamborough Head Heritage Coast. The wind farm array area is scoped out due to the distance from the shore.

Two zones for the substation have been identified. It is important for the PEIR to cover both of these zones (Zones 1 and 4). The design envelope could include HVAC or HVDC infrastructure with one or two substations within each zone. All scenarios will therefore need to be assessed.

In order to identify a worst case scenario for PEIR, the maximum footprint size (HVAC) have been combined with maximum building heights (HVDC) which will be used for the basis of assessment within the each of the zones. Indicative worst case platform levels have also been identified based on indicative engineering information made available to date.

ZTV maps have been created for the worst case scenarios within each zone. An initial 5km buffer has been applied to each zone, buildings and main woodlands have been modelled. The ZTV for Zone 4 is more extensive than Zone 1 as it is located on higher ground. It should be noted that Zone 4 is within the local landscape designation (Yorkshire Wolds Important Landscape Area) which will be accounted for in the assessment.

Three viewpoints will be used for each zone (available within the Powerpoint). Some of these views were used in the consultation material. Wider viewpoints have also been considered with views of both substations if they were to be located in separate zones e.g. Beverley Minster tower. The PEIR will consider the potential for internal cumulative effects of possibility using both zones. Block modelling will be used to illustrate the impact at the closer viewpoints.

- **MS** Question if the block is a worst case scenario and whether landscaping around this could occur to screen out more areas. **PM** confirms this is a worst case but may not occupy all of the block and landscaping is possible but at a PEIR stage this is difficult to visualise. Landscaping principles will be set out for the ES. PM intends to supply illustrations for the closer viewpoints to the ETG.
- **SM** Comfortable with the approach as the zones are to the north west of the existing Creyke Beck Substation, given the distances involved from the Hull City boundary, no comment.

ETG in agreement that the approach to assessment within the PEIR is suitable.

- **DF** Requested confirmation from Historic England on the viewpoint in proximity to the anti-aircraft scheduled monument. agreed to follow this up. **MS** suggested to scope this in as a precautionary measure.
- **RH** The Project will connect into a new National Grid Substation in close proximity to the Existing NG Substation at Creyke Beck.



	<b>AB</b> – NG are currently undergoing site selection for this site, consultation will be undertaken in 2023.	
4.	AOB	
	No further business.	
5.	Summary and Next Steps	
	Provide recording and slides to all invited parties.	JF
	Minutes to be circulated early January.	JF
	PEIR publication aiming for April 2023.	



DBS Offshore Win	nd Farms Offs	hore and Onshore Archaeology ETG – Pre-PEIR
	Document	Number: 004670334-01
Meeting with:	eting with: Offshore and Onshore Archaeology Expert Topic Group	
Location:	Online – Microsoft Teams	
Start Time of Meeting:	14:00	Date of Meeting: 19 <sup>th</sup> January 2023
Attendees	Initials	Role & Organisation
	DB	Offshore Consents Manager, RWE Renewables
	AC	Offshore Consents Manager, RWE Renewables
	AB	Onshore Consents Manager, RWE Renewables
	HP	Graduate Consents Intern, RWE Renewables
	VC	Offshore Archaeology Lead, Royal HaskoningDHV
	SM	Onshore Archaeology Lead, Royal HaskoningDHV
	HC	Offshore Lead, Royal HaskoningDHV
	CC	Offshore Support, Royal HaskoningDHV
	SC	Marine Planning Archaeologist, Historic England
	KE	Inspector of Ancient Monuments, Historic England
	AH	Science Advisor, Historic England
	SD	Principal Conservation Officer, East Riding of Yorkshire Council
Apologies	Initials	Role & Organisation
	RN	Principal Archaeologist, Humber Archaeology Partnership
	JG	Humber Archaeology Partnership
Meeting Agenda/ Objective(s):	Offshore  • Provide an update on data collected • Confirmation on the scope of the offshore assessment for ES  Onshore  • Provide an update on work done to date • Gain stakeholder feedback on heritage viewpoints around substation zones • Confirm how the stakeholders would like to receive the geophysics results	



Item	Description/ Discussion	Presenter
1.	Welcome and Introduction	
	All attendees introduced themselves and their role in relation to the projects. An overview of the agenda and objectives of the meeting was provided.	НС
2.	Project Update	
	An update on the DBS offshore wind farm projects to date was provided, including details on the site selection process to date and a summary of the likely infrastructure requirements. The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined, as presented in slide 9.	DB
3.	Offshore Archaeology	DB
	Offshore Project Design	VC
	<ul> <li>Provided an outline of the Projects' offshore design parameters to be included in PEIR, which have been developed further since scoping.</li> </ul>	
	Marine Geophysical Survey	
	Outline of the geophysical data acquired by Fugro and MMT in 2022.	
	<ul> <li>Wessex Archaeology are starting to assess the data. Due to the timescales and amount of data the outputs of this assessment won't be included in PEIR.</li> </ul>	
	<ul> <li>In the ES, a full geophysical assessment of data from the export cable route (ECR) will be undertaken, whilst for the array areas a selective assessment will be carried out.</li> </ul>	
	Rationale for Selective Approach in the Array Areas	
	<ul> <li>Round 4 sites are very large areas with full coverage, higher resolution data in comparison to previous leasing rounds, would take 545 days to assess array area data alone.</li> </ul>	
	Previous 'selective strategies' concentrated on a limited subset across a very coarse multi-km grid.	
	<ul> <li>Modern MBES surveys typically always capable of identifying small and often sub-meter anomalies, much higher resolution than data previously gathered.</li> </ul>	
	Only a small percentage of the array areas will actually be built on.	
	Alternative Approach to Assessment	
	Array Area: all data will be looked at but not all in raw format.	



- All magnetometer data will be looked at but anomaly thresholds will be raised (i.e. low strength anomalies to be excluded, as informed the results of recent ground truthing exercises in the Dogger Bank area). This threshold will be reviewed during the assessment and amended if necessary.
- Processed MBES and SSS GeoTiffs with a starting threshold of 5m combined dimensions to identify 'more significant' anomalies (the approach will be reviewed during the assessment and amended if necessary, depending on the volume of targets of interest identified).
- Assessment results will be integrated with survey company contact lists.
- Detailed assessment of 'more significant' anomalies will be undertaken for FIA characterisation.
- ECR: all data will be assessed in raw format.
- Results will be communicated through EPP prior to submission of ES.

SC – Sounds very comprehensive, why have the Projects gone down the route of acquiring such high resolution data. Have they identified there might be a risk further down the line?

VC – It is more to do with the resolution of the equipment available these days and the size of the Projects area. Data resolution is significantly better than even five years ago, it isn't related to any specific risks identified for the Projects.

SC – It is a good thing the data exists and is being provided to the archaeological contractor, as it can be reviewed further down the line if required. We have seen in the past the more selective assessments, but not having it at PEIR stage is a little different. The confirmation that we will be informed how the interpretation process is going prior to the ES submission is a good thing.

VC - Should we get dates in the diary to discuss what we are finding in the data?

SC - Could be very helpful, yes. Possibility of micrositing in ECR is more restricted. Maybe don't have a uniform approach to thresholds across both array areas? Being slightly closer inshore, might find more anomalies, area was important during WW1 and WW2.

HC – Recognising the info won't be in PEIR, we are planning to issue a draft ES chapter prior to submission to allow stakeholder comments to be taken into account prior to submission.

SC – That would be useful, especially in conjunction with Wessex's technical report.



HC – We will also provide a programme of when documents would be issued across to help with resourcing within your teams and also likely timings for ETG meetings.

SC – There might be a cost associated with these reviews, not sure on the figure but wanted to flag.

DB – Confirmed that reasonable costs for non-statutory consultation can be met.

Action: DBS to provide programme for document issue and pre-ES ETG meeting Action: Historic England to confirm whether there are any costs associated with draft document reviews

# Marine Geoarchaeology

- Outline of the limited borehole campaign carried out in the Projects' arrays in 2022.
- Two boreholes with glacial deposits only.
- Two boreholes with alluvium presence and wood fragments.
- One borehole had possible organic material.
- A more extensive geotech survey to be undertaken along the ECRs in 2023. No lab assessment results will be available in time to inform PEIR or ES.

SC – In terms of 2023 survey, would a method statement be produced and issued? This would be handy to see in terms of wider development. Even a brief outline of what is proposed.

VC - A method statement can be produced.

DB – Geotech survey for array areas will likely take place 2024, ECR survey in 2023. Details are not fully confirmed, as surveys remain in procurement.

AH – Assumed the samples already taken have been stored in appropriate conditions. Can you please check this.

VC - Will make sure this is the case and provide confirmation.

AH - Good to include a small paragraph in next method statement on this.

Action: DBS to confirm that 2022 geotechnical samples are being stored appropriately for potential future analysis.

Post-Meeting Note – Confirmed that all samples are being stored in a temperature controlled environment in accordance with ISO19901-8, with disposal of samples being undertaken strictly on written instruction from RWE.

# PEIR Baseline Summary

 Outline of the seabed prehistory baseline. A lot of glacial deposits in the array areas.



No known prehistoric sites.			
<ul> <li>Maritime and aviation – Basing the baseline on public information.</li> <li>UKHO/NHRE datasets. 78 records in total, 14 'live' wrecks, only one of which is identified.</li> </ul>			
<ul> <li>Even distribution across array areas and ECR. The only 'named' wreck is fairly close to shore.</li> </ul>			
SC – Looking at the UKHO data fair number of pipelines, some wrecks look to be close to the pipelines.			
VC – The intertidal baseline is summarised as follows:			
<ul> <li>NRHE and Humber HER records and data show three main areas of interest: Prehistoric to Roman;</li> </ul>			
<ul> <li>Medieval to post-medieval; and</li> </ul>			
o 20 <sup>th</sup> century military.			
<ul> <li>Due to erosion, potential to isolated find features in the intertidal and cliff line.</li> </ul>			
<ul> <li>Will be using trenchless techniques at the landfall to install the cables e.g. Horizontal Directional Drilling. There will be no open trenching through the cliffs. There is the potential for the exit pits for these to be either in the intertidal or below mean low water springs.</li> </ul>			
AH - Will there be a section in the report covering the whole of the Holocene?			
VC – Will be a co-ordinated approach between the on and offshore, will be a point of consideration moving forward.			
<ul> <li>Medieval to post-medieval corresponds to lost villages and towns. Lost cliffside features due to erosion.</li> </ul>			
<ul> <li>Most of the records are from WW2. Number of pillboxes on the top of the cliffs, can see eroded remains on the beach. Concrete debris along the shore.</li> </ul>			
HC – Anymore questions please let us know.			
Onshore Archaeology	SM		
Onshore Project Design Envelope			
Outline of the current onshore design envelope.			
Substations			

Two possible substation zones identified, four development scenarios due to differences in HVAC/HVDC substation sizes. Outline of the

maximum footprints.

4.



### Heritage Walkover Survey

- Undertook walkover survey in early December 2022. Had access to 62 heritage assets, including within the intertidal zone. Of these, 15 are extant in varying conditions. Pillboxes in good condition.
- Few records of earthworks confirm. Nunkeeling DMV retains good preservation of earthworks including a stone-lined well.
- All records visited within the intertidal zone will be reported on within the Heritage Walkover Survey report appended to the Onshore Archaeology PEIR Chapter. However, the assessment of impacts on the intertidal assets will be presented within the Offshore Archaeology PEIR Chapter.

## Heritage Setting and Viewpoints

- Joint LVIA and historic ETG in December, minutes issued on 11<sup>th</sup> January 2023 (ref: 004677785-01).
- Screening assessment undertaken of LVIAs ZTV, based on worst-case scenario of substation parameters and 5km study area.
- Assets that fall within the ZTV are being considered.
- Initial settings assessment conducted with site visit taken place on 8<sup>th</sup> December 2022.
- LUC undertook winter photography, including the identified heritage viewpoints, last week.
- LUC will produce box montages stretching the max 27m substation height across the entire substation zone for each viewpoint to inform the initial setting assessment.
- Would be beneficial to have a site meeting at each zone and to go to each heritage viewpoint and any other locations. Suggest site meeting post-PEIR.
- Potential for up to two platforms to be required along the offshore ECR. If one or both of these are taken forward will need to take into account change in setting to coastal heritage assets. This would be presented at FS
- The turbines are too far from the coast to have an effect on coastal heritage assets.

KE – Should have received the minutes, but please re-send just in case. Usual concern of setting studies is that they're conducted from set points and should take a more dynamic approach looking at how setting changes as you move through the landscape. KE to check the minutes and get back to you.

HC - Will send the previous minutes along with this meetings.



SD – Main concern is the impact on the view from the Minster and Church of St Mary. Topography might rule out impacts on other sites such as Walkington Conservation Area.

KE – Value of site meeting to see how the impacts change as you move through the landscape. Would be happy to have a site meeting.

SD - Also agreed to site meeting.

SM – Will set-up a site meeting for post-PEIR.

## Desk-based geoarchaeological assessment

- Conducted by AOC Archaeology in 2022.
- Provided an outline of key deposits identified.
- Areas of Potential identified across the onshore survey area.
- Programme of GI works planned for Spring 2023. RHDHV/AOC will be inputting into the GI scope and recommendations for monitoring. A WSI will be drafted detailing the GI monitoring works.

# Assessment of Aerial Photographic and LiDAR data

- Air Photo Services conducted the assessment. In Stage 1, 96 areas identified as containing either cropmarks, earthworks or structures from aerial imagery and LiDAR.
- 28 'new' areas of cropmarks/earthworks recorded. This information came in after the walkover survey, will be taken into account for future walkover surveys.
- Feature types include WWII defences, moated sites, DMVs, enclosures, ring ditches, ridge and furrow, field boundaries.
- Stage 2 reporting being finalised, will inform PEIR assessment.

### Geophysical Survey

- Conducted by AOC Archaeology. Surveys ongoing, data gathered pre-Christmas will be reported on in PEIR.
- Have had some issues with access, now have 90% access agreed. Wet
  weather conditions have hindered surveys, winter crop height is reaching
  point where surveys becoming difficult. Focusing on areas of stubble and
  pasture.
- Will be a survey hiatus between May and July in main crop growing season, looking at dates to resume surveys.
- Due to difficulty with access, looking at surveying as much of the route as we can.



	<ul> <li>Priority Area 2 is the southern landfall option. Northern extent of the area surveyed now falls out of the proposed landfall area.</li> </ul>	
	<ul> <li>Priority Area 9 - Contains the Nunkeeling DMV. Looking to go back here to survey the adjacent field to north/east of the area shortly.</li> </ul>	
	<ul> <li>Priority Area 24 - Within substation zone 4. Field 832: a negatively enhanced curvilinear is present on the western side of the survey, while the natural features continue from field 791. Looking to get into southern fields, but these have recently been ploughed.</li> <li>Priority Area 25 - Within substation zone 1. Number of natural features. In Field 766, a positively enhanced circular enclosure, broken in several places, is visible in the south.</li> <li>SM - How would and at Humber Archaeology Partnership like to receive the survey data? The pdf images are very large files so we could provide georeferenced tiffs of the greyscales and a shapefile of the interpretations, or look to set up a viewer.</li> </ul>	
	<ul> <li>Post-meeting note: Trial Trenching</li> <li>RHDHV/AOC are looking to draft a trial trenching plan for the substation zones and drafting a WSI. Looking to commence the trial trenching within these areas from Spring 2023.</li> </ul>	
5.	AOB No further questions raised.	
6.	Summary and Next Steps Offshore Will issue programme on when documents will be issued and next pre-ES ETG meeting so resourcing can be planned, Historic England to confirm whether there are any costs associated with draft document reviews Survey method for 2023 survey will be shared, including how samples are being retained.	HC
	Onshore Look into potential dates for site meeting at the substation zones, potentially post-PEIR.  December LVIA meeting minutes will be issued alongside minutes to this meeting. Stakeholders to confirm how they would like to receive the geophysical survey results.	



Provide slides to all invited parties.

Minutes to be circulated late January (to include re-circulation of  $\,$  Joint LVIA and historic ETG meeting minutes in December)

PEIR publication aiming for May 2023.



DBS Offshore Wind Farms Marine Physical Environment ETG – Pre-PEIR				
		Docume	ent Number: 004670334-01	
Meeting with:		Marine Physical Environment Expert Topic Group		
Location:		Online – Microsoft Teams		
Start Time of Meeting:		10:00	Date of Meeting: 20 <sup>th</sup> January 2023	
Attendees		Initials	Role & Organisation	
		DB	Offshore Consents Manager, RWE Renewables	
		AC	Offshore Consents Manager, RWE Renewables	
		HP	Graduate Consents Intern, RWE Renewables	
		DSB	Principal Coastal Geomorphologist, Royal HaskoningDHV	
		CM	Principal Consultant, Royal HaskoningDHV	
		НС	Offshore Lead, Royal HaskoningDHV	
		CC	Offshore Support, Royal HaskoningDHV	
		RF	Case Officer Natural England	
		EJ	Marine Senior Advisor, Natural England	
		EH	Natural England	
		ОВ	Principal Geomorphologist, Environment Agency	
		LB	Geomorphology Lead, Environment Agency	
		ACr	Environment Agency	
		NP	JNCC	
Apologies		Initials	Role & Organisation	
		MR	Case Officer, MMO	
		TC	Case Manager, MMO	
		LG	Environment Agency	
		ET	JNCC	
Meeting Agenda/ Objectiv	e(s):	<ul><li>Discu</li><li>Discu</li></ul>	de an update on baseline environment characterisation ss and agree approach to coastal erosion assessment ss and agree Marine Physical Processes Method Statement and cability of Creyke Beck Numerical Modelling to the Dogger Bank South cts	



Item	Description/ Discussion	Presenter
1.	Welcome and Introduction All attendees introduced themselves and their role in relation to the projects. Run through of the agenda.	НС
2.	Project Update  An update on the DBS offshore wind farm projects to date was provided, including details on the site selection process to date and a summary of the likely infrastructure requirements. The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined.	DB
	EJ – On the envelope, what is the reason for 11 platforms across both arrays? The existing Dogger Bank projects are only building out one platform per project.  DB – Coming from engineering uncertainty, still have HVDC and HVAC as potential connection options for DBS West, DBS East will be a HVDC connection. The design will be refined further as we progress to DCO submission and post-consent. It is likely that we well be assessing for 11 platforms in the final ES.  HC – Can provide a further breakdown of the Projects Envelope in later ETGs, including in the Seabed ETG in February. It should be noted that the Dogger Bank A & B projects had up	
3.	to 14 platforms in total within their design envelope for the two Projects.  Post-meeting note – Please note that responses to initial comments from Natural England and the Environment Agency have been provided in the accompanying Responses To Stakeholders Clarifications (004621981-02) document that accompanies these minutes.	СМ
	<ul> <li>Existing environment</li> <li>Description of existing data used for the assessment.</li> <li>Two wave buoys deployed, one in each array area. These were deployment in March 2022, so some data is now available. Intended to be deployed for a full year.</li> <li>Project-specific data collection</li> <li>Description of all surveys conducted in 2022.</li> <li>Data will be incorporated into the assessment at ES stage.</li> <li>Offshore Study Area</li> <li>Bathymetry</li> <li>Depths range from 12-40m LAT. Site specific geomorphological assessment will be conducted for ES.</li> <li>Marine Geology</li> <li>Have acquired grab samples and will analyse PSA data, expecting relatively low mud content.</li> <li>Metocean</li> <li>Also using data from the Hornsea wave buoy in relation to the offshore export corridor, in the process of acquiring project specific tidal data.</li> </ul>	



- Suspended sediment concentration
  - Description of SSC which shows relatively low concentrations (less thank 5 mg/l) in array areas and up to 30 mg/l in the nearshore
- It was also confirmed that only a small percentage of the areas will actually be built
  on, these Projects occupy a very large area and will have as a maximum 200
  turbines across the two array areas.

#### Possible Landfall Locations

- Two adjacent possible landfall locations located at Skipsea. Seven East Riding coastal profiles located within the potential landfall areas. Installation of cables at the landfall will be via trenchless techniques with the exit pits for these located either in the intertidal zone, or below MLWS.
- EJ Is the final goal to reduce landfall to one or might both be used?
- DB Likely will be one but not yet confirmed.
- HC Both are large enough to fit all the ducts required for both Projects.

#### Coastal erosion

- Description of overall comments received at scoping.
- Have used the EYRC coastal profile data in PEIR, which show high coastal erosion in the area.
- In PEIR, plan to use empirical methods to predict future coastal erosion at the landfall.
- Is there agreement on this methodology? What are the other projects that EA
  mentioned in there scoping response? Would these be useful to inform the rates
  used?

### **Smithic Sands**

- Potential for the ECC to cross the southern boundary, but as can be seen from the
  figure this would be the temporary construction corridor but not the export cable
  corridor where the cables will be buried. Will be looking at site specific data to
  determine southern extent of Smithic Bank.
- LB Landfall will be hard point you need to defend, what defences are being considered to protect the landfall?
- HC From engineering design perspective, looking at what the set-back distance will need to be for the onshore entry pits to take account erosion rates for the lifetime of the Projects.
- DB No plans as of yet for defence works. Assuming will rely on the setbacks to protect the TJB.
- LB Is reasonable to assume it will be outflanked by the softer geology around it?



DSB – As far as I understand, landfall will be installed using HDD, or other trenchless techniques, which will enter landfall site below the shore platform and go beneath the cliff	
and come back up at a site that is landward of the predicted position of the cliff-top over the lifetime of the wind farm. No requirement to defend against erosion if HDD used.	
LB – Setback for the HDD, how is that being decided?	
DB – Looking at 60 years and then further into the future if necessary.	
DSB – Aim to predict future position of the cliff-top, with future sea-level rise. Could use different sea-level rise scenarios, to predict a range of positions against which a decision can be made on where the onshore infrastructure should be located.	
OB – Encouraging what is being said around determining the potential setback required. On the medium emissions scenario, it would be interesting to consider the high emissions scenario as well. With the exit potentially being in the intertidal zone, it would be useful to know what that would look like or entail e.g. scour protection as any structure in the intertidal could impact coastal processes.	
OB – DSB mentioned the EA research project using the SCAPE model, not sure what the design life of the models are, but they are primarily looking at longer timescale there which would not be suitable for this Project.	
EJ – Agrees with everything Oli said and it would be helpful to understand the access requirements to the beach and whether there is a need for an access ramp.	
DSB – On exit point perspective, would assess on intertidal scenario as it is the worst case. If it is found to have no impact there, then an exit point further seaward, would be anticipated to have a lesser impact.	
HC – Looking to consult between PEIR and ES with draft ES chapters in Autumn, can update and provide a programme to help show when anything will be coming through. Can provide updates on data in these meetings.	
EJ – Consultation on draft chapters would be very helpful. Do we know where the Hornsea 4 crossings will occur in relation to Smithic Bank?	
DB – The Hornsea 4 / DBS crossing is located further east of Smithic Bank around where the dog leg is in the ECR.	
OB – Previous comment was on decommissioning plan, is any intertidal infrastructure remaining in-situ? Will this info be in PEIR?	
HC – Limited information on decommissioning will be provided in PEIR as it's difficult to predict technology changes into the future.	
OB – Looking to avoid any impacts to coastal morphology beyond the operational stage.	

DSB

Applicability of Creyke Beck modelling studies to the DBS Projects

A description of the location of other Dogger Bank Projects in relation to the DBS Projects

4.

was provided.



Based on this, the modelling results from Dogger Bank A and B, located adjacent to DBS would be used, rather than Dogger Bank C and Sofia modelling as these projects are located further away.

Worst-case assumptions Creyke Beck modelling

- Dogger Bank A and B modelling was completed 8 years ago.
- It was related to release of suspended sediment from foundation installation.
   Assumed 24 foundations installed over 30-day period, which was a conservative view. If no impact over that period, the rest of the installation would be less worse than this outcome,
- Assessed GBS with 50m base plate and 12m monopiles.
- Results indicated that 12m monopile was the worst case (just) and therefore this
  one was taken forward to impact assessment.
- For operation had to decide what the worst case could be. It was deemed the
  worst-case was a larger number of smaller turbines as this creates a greater
  blockage effect in the water column. Modelled the array areas and across entire
  developable area providing an extremely conservative assessment with a
  significantly greater number of wind turbines than planned for DBS.

Maximum suspended sediment concentrations in bottom layer for 12m monopiles and cable installation

- Maximum suspended sediment concentrations at any time throughout the 30-day simulation period were predicted to be elevated above natural background levels (2mg/l) by two orders of magnitude (greater than 200mg/l) within the 24-foundation installation area.
- Maximum concentration reduces to background levels, 10s of kilometres away from the centre of the 24-foundation installation area.

Maximum deposition for installation of 12m monopiles and cable installation

- Maximum bed thickness change (sediment deposition from the plume) throughout the 30-day simulation period was predicted to be up to 50mm within the boundaries of the installation area, reducing to less than 0.5mm, 10s of kilometres away.
- Maximum during the simulation.

Sediment thickness time series analysis

 In the middle of the foundation installation, sediment thicknesses predicted to be greater than 3mm only persist continually for a maximum of 146 hours (4-5 days) before dropping to below this value at all other times.



- Thicknesses greater than 7mm and 10mm occur continuously for a maximum of 34 and 26 hours, respectively.
- The longest continuous period where predicted thicknesses are greater than 1mm at Point P1 is 178 hours. During this period, total deposition thickness resulting from the plume rarely exceeds 2.5mm.
- Even with 24 foundations, over 5-6 days the deposition reduces to less than 3mm due to resuspension.
- Ultimately, the overall changes in bed level due to suspended sediment deposition are immeasurable, due to continued re-suspension.

### Applicability to the Projects

- We feel the plume dispersion modelling is applicable to DBS. The physical
  conditions are similar and the sediment composition in terms of mud content is
  likely to be similar. Draft reporting from the benthic characterisation survey
  conducted for the Projects indicates that fine material is very scarce in the array
  areas and offshore export cable corridor.
- We think the Dogger Bank A & B predictions will be similar for any modelling conducted for DBS.
- The indicative parameters for monopiles that could be installed at the Projects are up to a maximum of 200 piles of 11m diameter for the 15MW turbine option, and 95 piles of 17m diameter for the 31.5MW turbine option.
- If a model for the Projects was run it would use 200 piles of 11m diameter as the
  worst case for the whole array, equivalent to a larger number of smaller
  foundations, which is proven to be the worst case, rather than a smaller number of
  larger foundations.
- Hence, a model would simulate 24 foundations of this size, which are 1m less in diameter than the modelled monopiles for Dogger Bank A & B.

### Clarifications

- Jacket foundations were not considered in the models this is due to them not being deemed to be the worst-case compared to GBS and monopile. The model was run for the worst-case.
- 17m monopiles are not comparable to 11m modelling. Larger 17m monopiles would generate larger volumes of suspended sediment, and so a 12m monopile simulation would not be comparable. However, cumulatively the release of sediment would be less from the 17m monopile as there would only be a maximum of 95 turbines, compared to 200 for the 11m monopile.
- No coarse sediment in model Coarse sediment will drop close to point of disturbance, do not typically assess coarse material in sediment dispersion models.



It's not possible to show locations where sediment dispersal and deposition might
occur from the installation of turbines within DBS array areas - It will not be
possible to show precise dispersion footprints and deposition locations, but the
general distribution of sediment modelled from the previous wind farms can be
used to map conceptually where sediment is likely to go and where it is likely to
deposit because the driving processes are similar to DBS.

EJ – The 95 and 200 turbines, is that an either-or scenario, or is there potential for a mix?

HC – This is the high and low end of the project design envelope, so maximum number of turbines across the two Projects would be 200, with 95 being the lower end of the envelope. The actual number of turbines could be anywhere between 200 and 95.

EH – With the coarser fraction, do you think the plume distribution in the southern corner could use an empirical model to determine the spread of coarser sediment there?

DSB – Could do that conceptually, could map out percentage OF settling coverage. Could do this if important. Wonder how relevant this is, if the % of mud is say 5%, 95% of the material is coarser, would rapidly deposit but the composition of the material would be the same, minus the 5% of mud. The seabed would not change much in this scenario.

EH – For DBS West, there may be a sensitive sandeel habitat there, for persistence would be important to model and how long the deposition would persist for. Would be useful to compare the data from Dogger Bank A and B and the updated datasets.

DSB - Can provide that detail and provide a conceptual model for coarser sediment.

Post-meeting note - Please refer to comments NE13 and EA2 in the accompanying Responses To Stakeholders Clarifications (004621981-02) document for further clarifications.

EH – Will the plume extent be provided for the 17m monopiles also?

DSB – The results of the A and B modelling are for the 12m monopiles. We can't present that as an analogue for 17m installation in DBS, would have to check whether 12m installation is worst-case compared to 17m installation.

Post-meeting note - Please refer to comments NE4 in the accompanying Responses To Stakeholders Clarifications (004621981-02) document for further clarifications.

EH – If there are sensitive habitats nearby, need to crosscheck the sediment deposition areas and whether would affect these. Benthic ecology changes at the edges of the Dogger Bank SAC so need to be aware of this.

DSB — Will take this suggestion away and think how to address this. Impacts on benthic ecology will be considered within the benthic ecology chapter, which will itself draw upon the results of the physical processes assessment work, which should allow any impacts to sensitive habitats to be identified.

Post-meeting note - Please refer to comments NE5 and NE6 in the accompanying Responses To Stakeholders Clarifications (004621981-02) document for further clarifications.

Gridded layout of gravity base foundations at 700m spacing



- Relates to operational impacts. Assessment of effects for Dogger Bank A and B on
  waves and tidal currents was based on the use of a highly precautionary worst case
  scenario that assumed the whole developable area would be filled with
  foundations.
- Modelled the entire project area as a worst-case. The justification for this was that
  if this scenario does not give rise to impacts that could result in significant effects
  for other receptors, then the individual and combined effects of Dogger Bank A & B
  would not be significant.

Difference in significant wave height caused by gridded gravity based foundations at 700m spacing

- Predicted maximum changes (worst case) in significant wave height were for oneyear waves from the north and northeast.
- Change in wave-heights was not found to be very large.

Maximum percent change in depth-averaged current velocity caused by gridded gravity based foundations at 700m spacing

- The maximum change to depth-averaged current velocity was predicted to be +/ 0.03m/s with the greatest effect occurring at the boundary of the developable area.
- Changes were insignificant considering the tidal velocities in the area.

### Applicability to the Projects

- Dogger Bank A and B modelling filled the whole Dogger Bank Round 3 Zone with GBS foundation which is highly conservative.
- Therefore, this can be considered a highly conservative proxy for the DBS projects.

### Conclusions

- We feel no new bespoke modelling is needed as Dogger Bank A and B modelling is analogous to DBS project.
- Will be assessed in PEIR conceptually using the Dogger Bank A and B modelling results
- In the process of responding to the NE and EA clarifications on the modelling document (Previous Dogger Bank wind farm projects Modelling Campaigns Relevant to Dogger Bank South Offshore Wind Farm: 004621981-02).

LB – I would be interested to see what the grab samples are showing compared to what is used in the modelling. If more variable, might have to do something more bespoke. On the wave data, there is 8 years of wave data that has not been incorporated? Was the last 8 years of wave data not statistically significant?

Post-meeting note - Please refer to comments NE13 and EA2 in the accompanying Responses To Stakeholders Clarifications (004621981-02) document for further clarifications.



DSB – Not sure of the time period for the previous wave datasets. The assumption is there has not been a significant change in last 8 years, IPCC data does not indicate a significant change in waves as a result of climate change.

LB — Would be interesting to see what the one-year wave from the previous model would look like now. Talking about how important tidal currents are for suspension, with DBS being closer to shore, is the tidal regime slightly different?

DSB – Regime is like the currents to the east. We are ~100km from the coast, more to do with the regional tidal currents. Tidal surge worst-case is the one in one-year storms. We can let you know what the difference in the one in one- year wave would be by analysing the recent data and see the difference between it and the model inputs.

LB – Presumably want a broader dataset than the one year.

DSB – There are larger datasets across the North Sea we could use, don't know if there will be a significant difference in the one in on-year wave height. We can look into this and see if there is any significant differences and provide an update on this.

Post-meeting note - Please refer to comments NE8, EA5, EA6 and EA7 in the accompanying Responses To Stakeholders Clarifications (004621981-02) document for further clarifications.

LB – Is the bathymetry broadly similar to that modelled?

DSB – Categorised as a maximum, minimum and average, it is similar across both sites, but there might be a difference in slopes. At this scale the slopes will likely be swallow, can investigate how slope could change the physical processes.

Post-meeting note - Please refer to comments NE12 in the accompanying Responses To Stakeholders Clarifications (004621981-02) document for further clarifications.

CM – We are requesting tidal ellipse data to investigate comparability to support this case.

EH – Echoing what Lily has said, useful to see the tidal comparison data, the slope region is different to that of the flat top of the Dogger Bank. The older model did not consider the cable influence e.g. cable protection, would be useful to see how that influences sediment transport processes.

DSB – Once we get the tidal ellipse data we can make the comparisons, also need to check the one on one-year wave height potential differences. On the cable protection issue, have never seen operational changes to hydrodynamics modelled as a result of cable protection. A 1m elevation change is not significant compared to the depth of water. Have conceptually assessed in the past. Change to physical character itself will be less relevant, important element is sediment transport and potential for protection to create a barrier and starve areas downstream of sediment, and this will be assessed as a worst-case, i.e. cable protection in the nearshore.

EH – Way to consider what the 7% reduction in wave height would mean for habitats in the southern zone over the operational timescale of the Projects.



	DSB – Won't be considered in this chapter, if it affects habitat, will be dealt with in the	
	benthic ecology chapter.	
	ACr – Would be good to see the intertidal survey results.	
	HC – Some information is available from a habitats perspective. No other surveys have been conducted regarding physical processes.	
	EJ – mention of a written response being pulled together, will that be included in what you are proposing?	
	HC – Yes, we will provide a response to the clarification provided along with these slides to inform your formal response to the (Previous Dogger Bank wind farm projects Modelling Campaigns Relevant to Dogger Bank South Offshore Wind Farm: PC2340-RHD-OF-ZZ-TN-Z-0038). We are not currently planning to do any modelling based on the information presented and how the work done previously for Dogger Bank A & B is a good proxy for the DBS Projects. To meet our programme there is a cut-off date if we need to do modelling, please bear this in mind in your responses. Post-meeting note: project to make this decision by 14/2/23 to avoid impacts to programme.  EH – With the baseline and tidal-flow velocities, it would be useful to see a map showing differences in peak flow velocities between the spring and neap flow around the array areas.  CM – Yes that can be provided.	
5.	AOB	
	No further questions.	
6.	Summary and Next Steps	
	Project to take away comments provided by EA and NE prior to the meeting and provide responses in the first instance, prior to formal responses on the method statement being provided.	НС
	Provide slides to all invited parties.	
	Minutes to be circulated late January.	
	PEIR publication aiming for May 2023.	



DBS Offshore Wind Farms Marine Ornithology ETG – Pre-PEIR					
Document Number: 004674768-01					
Meeting with:		Marine Ornithology Expert Topic Group			
Location:		Online - Microsoft Teams			
Start Time of Meeting:	14:00	<b>Date of Meeting:</b> 7 <sup>th</sup> February 2023			
Attendees	Initials	Role & Organisation			
	DB	Offshore Consents Manager, RWE Renewables			
	AC	Offshore Consents Manager, RWE Renewables			
	PB	HRA Manager, RWE Renewables			
	HP	Graduate Consents Intern, RWE Renewables			
	HC	Project Manager, Royal HaskoningDHV			
	PP	Offshore Wind Technical Director, Royal HaskoningDHV			
	CC	Offshore Technical Support, Royal HaskoningDHV			
	MT	Principal Ornithologist, MacArthur Green			
	SR	Senior Ornithologist, MacArthur Green			
	EJ	Senior Responsible Officer, Natural England			
	RF	Case Officer, Natural England			
	RJ	Senior Ornithology Specialist, Natural England			
	RPV	Offshore Wind Marine Lead Advisor, Natural England			
	PC	Offshore Wind Marine Lead Advisor, Natural England			
	AM	RSPB			
	KM	Lincolnshire Wildlife Trust			
Apologies	Initials	Role & Organisation			
	TC	Marine Licensing Case Officer, Marine Management Organisation			
	MR	Marine Licensing Case Officer, Marine Management Organisation			
	ET	Offshore Industry Advisor, JNCC			
	AD	RSPB			
	TD	The Wildlife Trusts			
	СР	The Wildlife Trusts			
Meeting Agenda/ Objective(s):		<ul> <li>Provide ETG with a project update</li> <li>Provide a summary of the baseline environment for offshore ornithology, following the site-specific surveys undertaken for the Projects.</li> </ul>			



	Detail the assessment methodology and prelim findings of the assessment process	ninary
Item	Description/ Discussion	Presenter
1.	Welcome and Introduction  All attendees introduced themselves and their role in relation to the projects. Run through of the agenda.	НС
2.	Project Update  An update on the DBS offshore wind farm projects to date was provided, including details on the site selection process and a summary of the likely infrastructure requirements. The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined.	AC
3.	Offshore Ornithology Existing environment Existing Data  • Description of existing data used to inform the assessment, including 24 months of site-specific monthly surveys to be analysed at >=10% coverage. No issues or queries were raised.  • Twenty four months of aerial survey will be used to inform the assessment and these will be completed in February 2023. Data analysis of no less than 10% coverage will be undertaken.  • It was agreed with NE that no further digital aerial surveys would be required above the 24 months of data gathered for the Projects to inform the baseline, with the caveat that the level of survey coverage analysed in the results would require review. It was noted that RWE must ensure that the level of coverage analysed is suitable to ensure a robust assessment.  Site characterisation – density & abundance  • Discussion of the results to be presented in PEIR and the methodology used, including description of the autocorrelation analysis undertaken.  AM – Glad to see robust examination of autocorrelation. NatureScot commissioned review of DAS methods, as part of this they produced recommendations in the presentation of data. Recommendations are useful, if not seen already would be productive to take a look at them. Not sure what NE's recommendations on this are currently however.  MT – The recent guidelines issued last week?  AM – Not entirely, was an independent supporting report to the guidelines. (AM provided link in the ETG live chat: <a href="https://www.nature.scot/doc/offshore-wind-ornithological-impact-assessment-review-digital-aerial-survey-methods">https://www.nature.scot/doc/offshore-wind-ornithological-impact-assessment-review-digital-aerial-survey-methods</a> )  HC – Are NE going to provide thoughts on this?	MT



RJ – Has not been discussed yet, the report has just been published so will be having discussions soon.

# **Data analysis**

- Data divided into 'flying' and 'all' for analysis, former being subset of latter which includes 'sitting' birds
- 'Flying' data used for CRM within the wind farm area.
- 'All' used for displacement within the wind farm area plus 2 km buffer.

#### Site characterisation

- The species recorded in the Year 1 surveys are as might be expected for the area, with no surprises.
- The Year 1 data for gannet, kittiwake, guillemot, razorbill and puffin were presented. These are considered to be the key species of interest for the DBS projects.

Relatively low numbers of large gulls have been recorded. Less common species recorded included red-throated diver, Arctic and great skuas and little gull.

### **Assessment - Methods**

 Description provided of the assessment methods used to determine displacement and collision rates.

## **Assessment - Presentation of Results**

 Details of each scenario assessed for the Projects, and the turbine specifications that were used in the PEIR assessment.

# **Operational Displacement - Preliminary Results**

 Displacement assessment undertaken for guillemot, razorbill, puffin and gannet across the range of displacement and mortality rates, as per NE guidance was presented.

Initial assessment indicates that under all except the very worst-case scenarios (e.g. 70% displacement and 10% mortality) the level of impact from displacement will not be above 1% of background mortality.

AM – On gannets, two sources of modelled mortality, displacement and collision, are they combined?

MT - A combined gannet displacement assessment is presented



# **Collisions - Preliminary Results (WCS)**

- Collision modelling results for: gannet, kittiwake, great black-backed gull, lesser black-backed gull and herring gull were presented.
- The results indicate relatively very low levels of collision impact for all species except for kittiwake

AM – On gannets, RSPB have not yet reached a position on the macro-avoidance correction factor as recommend by NE, as the report it's based on has not been published yet. Understand its due out soon. RSPB advise using the old gannet avoidance rate for now. However, RSPB collision factor recommendation would still lead to low gannet collisions.

MT – Don't think this is of concern even using the RSPB preferred values. The previous 99.2% value is also included in the assessment.

AM - To Rebecca Jones, would be good to know when the report is going to be published?

RJ – Will be soon, is being discussed weekly, hopefully will have an update on the gannet situation soon.

 Preliminary collision results for gannet, kittiwake, great black-backed gull, lesser black-backed gull and herring gull provided.

### 4. **AOB**

MT

- Application of latest NE CRM guidance for cumulative assessment?
- Cumulative assessment only included in PEIR at high level due to shifting situation.

RJ – The interim CRM guidance is recommend to be used for Projects alone, but not for updating cumulative totals. Add project alone to existing in-combination figures. Cumulative Effects Framework is hopefully coming soon, still in the works how guidance on this will be provided. Agreed that it does not make sense to do a full cumulative assessment on 12 months of data in a rapidly changing offshore environment. May need site/species specific seasonality data, separate from Furness et al. (2015)

MT – Intention is to present last signed off cumulative totals (e.g. EA2/EA1N) and add the DBS totals. Noting that these will change with final SEP/DEP / Hornsea 4 additions.

RJ – Idea is that the NE guidance is an interim position because of the forthcoming CEF, which could cause the numbers to be changed again in the relatively near future. HC – Is there a rough timeline for when the updated guidance will be available?



	RJ - Can't give this yet, but the CEF tool is supposed to be completed very soon.  Although there will be questions on how it works and on the guidance surrounding the tool.	
	HC - Thank you, hoping delivery dates are being considered in these conversations.	
	MT – noted that it is a simple task to update existing collision estimates (for other wind farms) for a change in avoidance rate, no re-modelling is required, but understand the reasoning.	
	MT – with respect to tweaking of the Furness et al season definitions, it is assumed that this is more relevant for HRA than EIA?	
	RJ - Yes, we would agree this would be more relevant to HRA.	
	PB – Appreciate the inputs from everyone today.	
	AM – On avian flu, how is this being factored into discussions, know NE have produced interim guidance. How could this be influencing the baseline surveys and interpretation of results? Discussion around this would be welcome.	
	PB – This is something we are considering and will be having discussions on this. Something to discuss as a wider industry and would welcome inputs from all.	
	AM – It is a difficult situation, but the developer community has been very supportive so very grateful for that.	
	PB – Do you know of any planned workshops or wider meetings planned to address this?	
	AM - Not sure of anything coming up.	
	RJ – The impacts of avian flu are being discussed all the time and new info coming in. The note that NE released in September still stands currently. It would be good to interpret the second half of the second year of survey data in this context. Not much more useful information since last September, may be a few years until we know exactly what the impacts have been. We need to keep discussing with everyone as the situation progresses and becomes better understood.	
5.	Summary and Next Steps  Factoring in consultation on draft ES chapter in the Autumn, looking to discuss prior to DCO Submission. No Draft RIAA with PEIR but will be discussed in Autumn.	НС
	Provide slides to all invited parties.	
	Minutes to be circulated late February. PEIR publication aiming for May 2023.	



DBS Offshore Wind Farms Seabed ETG – Pre-PEIR					
Document Number: 004674767-01					
Meeting with:		Seabed Expert Topic Group			
Location:		Online - Microsoft Teams			
Start Time of Meeting:	10:00	Date of Meeting:	7 <sup>th</sup> February 2023		
Attendees	Initials	Ro	le & Organisation		
	DB	Offshore Conse	nts Manager, RWE Renewables		
	AC	Offshore Conse	nts Manager, RWE Renewables		
	HP	Graduate Cons	sents Intern, RWE Renewables		
	PB	HRA Ma	nager, RWE Renewables		
	HC	Offshore Le	ead, Royal HaskoningDHV		
	PP	Offshore Wind Techr	nical Director, Royal HaskoningDHV		
	CC	Offshore Sup	oport, Royal HaskoningDHV		
	SS	Project Sup	port, Royal HaskoningDHV		
	OW	Marine C	Consultant, MarineSpace		
	LD	Senior Marir	ne Consultant, MarineSpace		
	RF	Case Officer, Natural England			
	EJ	Senior Responsible Officer, Natural England			
	KC	Benthic Ecolog	gy Specialist, Natural England		
	RPV	Offshore Wind Mar	ine Lead Advisor, Natural England		
	LB		hore infrastructure (focus on benthic or DBS) , Natural England		
	PC	Offshore Wind Mar	ine Lead Advisor, Natural England		
	LA	Marine Lic	ensing Case Officer, MMO		
	TC	Marine Lic	ensing Case Officer, MMO		
	JE	Bent	thic Ecologist, Cefas		
	IB		Cefas		
	SB		Cefas		
_	ET		e Industry Advisor, JNCC		
	NP	Offshore	e Industry Advisor, JNCC		
Apologies	Initials	ls Role & Organisation			
	ОВ	Environment Agency			
	LG	Environment Agency			
	TD	The Wildlife Trusts			
	СР	Т	he Wildlife Trusts		



# Meeting Agenda/ Objective(s):

- Provide ETGs with a project update
- Provide a summary of the baseline environment for the Benthic & Intertidal Ecology and Fish & Shellfish Ecology, following the site-specific surveys undertaken in 2022.
- Detail the impacts assessed for Benthic & Intertidal Ecology.

Item	Description/ Discussion	Presenter
1.	Welcome and Introduction  All attendees introduced themselves and their role in relation to the projects. An	НС
	overview of the agenda and objectives of the meeting was provided.	
2.	Project Update  An update on the DBS offshore wind farm projects to date was provided, including details on the site selection process to date and a summary of the likely infrastructure requirements. The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined, as presented in slide 9.	DB
3.	<ul> <li>Benthic and Intertidal Ecology - Existing Environment</li> <li>CC gave an update on the existing benthic and intertidal ecology environment.</li> <li>Detailed some examples of the publicly available information and site-specific surveys used to inform the assessment.</li> <li>Resulting Sediment Composition: <ul> <li>Grab samples were acquired at 179/180 stations, with one abandoned due to coarse substrate.</li> <li>The seabed was primarily sand/muddy sand with varying proportions of shell fragments.</li> <li>Closer to shore, sediment was primarily gravel around the coastal margins, grading sand (24km from landfall).</li> <li>Elevated contaminants were detected in one sample (station 164), 24km offshore, but still below the level of effect.</li> </ul> </li> </ul>	CC
	<ul> <li>Offshore Habitat Classification:         <ul> <li>One habitat and five biotopes were identified following the grab samples and seabed video and photography.</li> <li>Potential sensitive habitats exist as Sandbanks Slightly Covered by Seawater (Annex I), Peat and Clay Exposures with Piddocks (Priority Habitat), Subtidal Sands and Gravel (Priority Habitat), and Stony Reefs.</li> <li>The offshore array area and cable corridor are overlap with Dogger Bank SAC and Holderness Inshore MCZ. The Holderness Offshore MCZ and Flamborough Head SAC are located near to the cable route.</li> </ul> </li> </ul>	



#### Intertidal:

A survey comprising transects was carried out at the two landfalls. The
area was classified as barren 'littoral coarse sand (MA5231)'. A survey
Report will be included as an appendix to the PEIR chapter.

## Invasive/Non-Native species:

- 15 individuals of Goniadella gracilis were recorded across seven stations.
- Polydora cornuta and Molgua spp. Were recorded across three stations.
- These are not included in the invasive species England Biodiversity Indicator (2021).

Note – The draft characterisation reports for benthic and intertidal ecology will be included as appendices to the PEIR chapter.

### **Questions:**

EJ queried whether on marine processes, in terms of the Holderness MCZ and sediment transport issues, Natural England would see further information on these. HC responded that sediment transport is included in the marine physical processes chapter which has been combined with water and sediment quality. No MCZ draft assessment is provided at the PEIR stage, this will follow and be discussed in the ETGs.

SB asked how the sampling locations were determined, whether along a grid, along the cable corridor, at set distances or informed by data. SB also asked whether data between intertidal transects was considered. CC responded that in terms of the grab locations, these occurred at set distances throughout the array areas and cable route. DB stated that this was refined using geophysical data for the cable route in terms of the longitudinal distribution as full geophys data coverage was available prior to mobilisation of the benthic survey. For the array area, a small volume of geophysical information was available, so this was largely grid-based with minor adjustments where geophys data were available and showed this was warranted. On the intertidal surveys, these were taken as transects towards the shoreline with a focus on where the surface habitat appeared to change. Entire habitat still characteristic of the same biotope. **Postmeeting note:** the survey design followed the specification agreed with the ETG prior to the survey, which detailed the proposed approach to siting stations.

# 4. Fish and Shellfish Ecology - Existing Environment

A description of the data sources used for the assessment was provided. These sources informed a 26,858 km² area up to 98m depth.

OW



The MMO landings data indicated plaice and herring as the highest value fisheries across the study area, with shellfish also accounting for a significant amount of landed value (primarily lobsters and edible crab).

In terms of receptor groups, four underwater noise groupings were used by Popper *et al.* (2014): Fish with a swim bladder used/not used in hearing, fish without a swim bladder and fish eggs/larvae.

### Standard groupings

### Elasmobranchs:

- No designated features for elasmobranchs are present in the study area.
- Nursery areas (Spurdog, Tope Shark and Thornback Ray) are located within or near the study area.

#### Demersal fish:

- No designated features for demersal fish are present in the study area.
- Spawning grounds (Dover Sole, Plaice), Nursey Grounds (Anglerfish, Blue whiting, European hake and Ling) and Spawning and Nursey Grounds (Atlantic cod, Sandeel and Whiting) are located within the study area.

# Pelagic fish:

- No designated features for pelagic fish are present in the study area.
- Nursey Grounds (Mackerel, Herring) are located within the study area.

## Shellfish:

- Lobsters, brown crabs, scallops, *Nephrops* and whelk are all significant commercial species in the region.
- All are assumed to have spawning grounds apart from Nephrops.
- Ocean quahog is listed as a designated feature of conservation importance within the Holderness Offshore MCZ.

# Migratory fish:

- High-value commercial landings were present for Atlantic Salmon and Sea Trout between 2016-2022.
- European eel, salmonids and sea lamprey are found within the Humber Estuary.
- There is limited data on population migration pathways so all are assumed to transit.
- Sea lamprey is a designated feature of the Humber estuary SAC.

For sand eel spawning, there was a 95% high potential in DBS West and 93% medium potential in DBS East, calculated using Latto *et al.* (2013). For Herring



spawning, there is a 26% high potential/50% low potential in DBS West and a 16% low potential in DBS East, as calculated using Reach et al. (2013). **Question:** JE asked whether a separate ETG meeting for fisheries, shellfish and noise could occur to include Cefas officers from the fisheries department. ACTION: HC agreed this could be arranged. 5. CC Impacts assessed for Benthic and Intertidal Ecology PEIR General: Detailed how the potential effects on sediment dispersion and deposition were based on the conceptual modelling approach from the Marine Physical Environment ETG. This information was obtained from Creyke Beck and deemed appropriate by the project for DBS. Post Meeting Note – Following consultation with and feedback from stakeholders, it has been decided to conduct a full modelling campaign for the Marine Physical Environment chapter. The results of this modelling will not be available for inclusion in PEIR for the Seabed related topics, but will be utilised at FS. Recent reporting from the benthic characterisation survey indicated similar seabed sediment composition. No cumulative effects assessment will be present in the PEIR, this will follow for the FS. Construction: All effects were assessed for DBS East and West in isolation and for both projects together. Four impacts were assessed: Temporary physical disturbance (from construction activities); increased suspended sediment concentration (from seabed preparation and infrastructure installation); remobilisation of contaminated sediment (from seabed preparation and infrastructure installation) and underwater noise and vibration (from a wide range of activities). Operation: No operational effects will arise from contaminated sediments, underwater noise or impacts on the intertidal zone. These were scoped

out of the assessment.



Four impacts were assessed: Temporary physical disturbance (from repairs and anchors); long-term habitat loss (foundations and scour protection); EMF (from cables) and colonisation of introduced substrate (INNS).

## Decommissioning:

- This is likely to include removal of all turbine components and some
- Scour and cable protection would likely be left in situ.
- Effects will be similar to the construction phase at a lower magnitude but with the same sensitivity.

#### **Questions:**

RF asked in terms of impacts, whether the HDD breakout was for inter or subtidal and whether rock protection would be needed. CC responded that this has not yet been decided but the impacts for intertidal are only being considered at the construction phase. HC responded that if it was intertidal, it would be buried infrastructure beneath the beach. If subtidal, this would need rock protection but would be considered as part of the general benthic impacts.

SB asked whether there are any other stakeholder assets along the cable corridor. DB responded that there are several planned assets including interconnector and wind farm cables and pipelines depending on which cable corridor is chosen. There are also a number of existing pipelines and cables crossing the ECR option areas For some projects, the consideration of which project is crossing which will depend on construction dates.

LB mentioned that on coastal processes, conditions exist on Creyke Beck A&B that there would be no cable protection within a 10m depth contour due to sediment transportation. Natural England would seek this to be a condition for this project and it should be considered for all crossing points i.e., ensuring that they are outside of the 10m depth contour. HC acknowledged this.

KC questioned why scour and cable protection are planned to be left in situ and whether this would impact benthic habitat and ecology. HC responded that decommissioning works will be dependent on technologies at the time and these conversations are ongoing in other projects. LB added that for Norfolk Vanquard and Boreas, there is a requirement to use scour protection and cable protection that has the highest likelihood of removal at the time of decommissioning.



LB asked that on ETGs, the format could be adapted to focus more on inputs rather than general updates. To facilitate this we would anticipate receiving agenda and technical notes 10 days prior to the ETGs to aid open and transparent discussions to progress matters, with written feedback provided with meeting minute 10 days after the meeting. LB stated that Natural England will also be providing much higher-level responses to PEIR chapters unless they are close to completion along with technical appendices.  LB also stated that the project timeframe will be tight between PEIR and DCO	
submission, with Natural England engagement limited by many other overlapping timeframes from other projects. LB also reflected that PINs were updating NSIP processes including acceptance, highlighting that there is likely to be a higher acceptance bar based on interested party feedback on the evidence plan process in order to meet Government's requirement to speed up consenting. NE recommend resolving all issues and evidence gaps prior to submission. HC agreed to consider timings.	
LB requested an engagement plan for each thematic area to see what consultation is expected and when to better plan resources around all the upcoming submissions. <b>ACTION: HC agreed to provide this.</b>	
Summary and Next Steps	
Actions from the meeting:	
<ul> <li>Follow-up meeting on fisheries, shellfish and potential noise impacts to be arranged by the DBS Project Team, with Cefas officers from the fisheries department invited.</li> <li>An ETG engagement plan on each thematic area being assessed to be shared with stakeholders to allow for better resource planning for upcoming submissions.</li> </ul>	HC
HC listed the <b>next steps</b> :	
Minutes will be issued.	
Consultation on draft chapters will commence in the Autumn.	
<ul> <li>Updates will be provided through the ETGs going forwards including HRA and MCZ assessment feedback.</li> </ul>	
<ul> <li>A separate meeting will be arranged to discuss the underwater noise modelling results.</li> </ul>	
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The next call will be scheduled for post-PEIR submission.

7.



DBS Offshore Wind Farms Marine Mammals ETG - Pre-PEIR				
Document Number: 004674769-01				
Meeting with:	Marine Mammals Expert Topic Group			
Location:		Online – Microsoft Teams		
Start Time of Meeting:	14:00	Date of Meeting:	Tuesday 21st February 2023	
Attendees	Initials	Ro	ole & Organisation	
	DB	Offshore Conse	ents Manager, RWE Renewables	
	AC	Offshore Conse	ents Manager, RWE Renewables	
	PB	HRA Ma	nager, RWE Renewables	
	HP	Graduate Cons	sents Intern, RWE Renewables	
	НС	Project Ma	nager, Royal HaskoningDHV	
	AS	Senior Environmen	tal Consultant, Royal HaskoningDHV	
	LL	Environmental (	Consultant, Royal HaskoningDHV	
	SB	Environmental (	Consultant, Royal HaskoningDHV	
	CC	Offshore Technic	cal Support, Royal HaskoningDHV	
	EJ		Natural England	
	NW		Natural England	
	EM		Natural England	
	RPV		Natural England	
	KW	Marine M	Management Organisation	
	LA	Marine M	Management Organisation	
	HA	Marine M	Management Organisation	
	KM	Linco	olnshire Wildlife Trust	
Apologies	Initials	Ro	ole & Organisation	
	ОН		Natural England	
	TD	Т	he Wildlife Trusts	
	СР	Т	he Wildlife Trusts	
	ET		JNCC	
	LM		JNCC	
	•	rrovido Erdo vittira pr		
	<ul> <li>Provide a summary on responses to scoping comments, the site- specific surveys undertaken to inform PEIR, the underwater</li> </ul>			
Meeting Agenda/ Objective(s):		-	ach and a brief summary of sites screened	
		in for HRA.		
Item	Desc	cription/ Discussion	Presenter	



Welcome and Introduction	***
An overview of the agenda and objectives of the meeting was provided.	Н(
Project Update An update on the DBS offshore wind farm projects to date was provided, including details on the site selection process to date and a summary of the likely infrastructure requirements. The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined, as presented in slide 9.	A
Marine Mammals	A
Scoping Comments and Responses	
AS provided a summary of the Projects responses to stakeholder comments received on the scoping report.	
Summary of Potential Impacts	
Summary of the impacts to be included within PEIR assessment.	
HA – We would expect an EPS licence to be applied for, for any UXO clearance work.	
AS – Yes this will be applied for at the appropriate stage of the Project.	
Site-Specific Surveys and species included in PEIR	
<ul> <li>AS provided a description of the site-specific surveys conducted for marine mammals, and the species that will be included in PEIR.</li> </ul>	
Harbour porpoise most common species sighted in surveys.	
Study areas and density estimates were also detailed for each species to be included in PEIR.	
EM – The current best practice advice guidance states that the Wadden Sea MU shouldn't be used unless the population is included for seal density estimates.	
AS – Would need to remove the Wadden Sea from calculations as densities are based on UK population. We will look into this further.	
Underwater noise modelling approach	
AS provided a description of the underwater noise modelling work undertaken for PEIR.	
EJ – We would want to take this away and think about the info presented.	
AS – Is a multiple scenario situation so is more complex, will undertake more consultation post PEIR.	
HC – Underwater noise modelling report will be provided at PEIR also.	



	Approach to the cumulative and in-combination effects	
	<ul> <li>Summary of the approach being taken for identifying and assessment of other plans/projects that may have cumulative and in-combination effects with the Projects.</li> </ul>	
	HRA Screening	
	<ul> <li>Brief summary provided of the designated sites screened in for further assessment in PEIR.</li> </ul>	
	<ul> <li>Carter 2022 reporting indicates a high level of connectivity between Humber Estuary SAC and the offshore development area.</li> </ul>	
	EJ – Moray Firth SAC has been screened back in, in NE's responses to the HRA Screening report we have advised the Coastal East Scotland MU be used for density estimates.	
	AS – For PEIR we are using the Greater North Sea MU, for HRA we are using the Coastal East Scotland MU for HRA. Is this acceptable?	
	EJ – Our specialists will check this and get back to you.	
	AOB No further questions raised.	НС
	Summary and Next Steps Actions from the meeting:	НС
	Seal MU estimates to be amended to remove individuals originating from the Wadden Sea.	
	<ul> <li>Natural England to confirm if the proposed approach of using the Greater North Sea MU in relation to bottlenose dolphin density estimates for PEIR is acceptable.</li> </ul>	
	HC listed the <b>next steps</b> :	
	Minutes will be issued.	
	Consultation on draft ES chapters will commence in the Autumn.	
	<ul> <li>Updates will be provided through the ETGs going forwards including RIAA, MCZ and UXO assessment feedback.</li> </ul>	
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		Document	Number: 004792091-0	)1	
Me	eeting with:	Onshore Ecology and Ornithology Expert Topic Group			
L	_ocation:		Online – Micro	osoft Teams	
Start T	ime of Meeting:	13:30	Date of Meeting:	20 <sup>th</sup> April 202	23
A	Attendees	Initials	Role	& Organisation	
		LT		RWE	
		HP		RWE	
		JF	Royo	al HaskoningDHV	
		LA	Royo	al HaskoningDHV	
		JB	ļ	Peak Ecology	
		LT	I	Ecus Ecology	
		VG	East Ridin	ng of Yorkshire Council	
		MW		ronment Agency	
		RJ		ronment Agency	
		NW		atural England	
		PC		atural England	
		EJ		atural England	
		BG		atural England	
P	Apologies	Initials	Role	& Organisation	
	ting Agenda/ pjective(s):	- Review rest of 2	the assessment to be pres	te and the survey progra	mme for the
Item		Desc	cription/ Discussion		Presente
1.		oduced themse	lves and their role in relation		JF/LT
2.	Project Update  Explanation of prothe array cables,	oject site and la offshore export	ndfall given by <b>LT</b> . Recapp cables, landfall, onshore c ck (the key elements).	ped the wind turbines,	LT



	An update on the DBS offshore wind farm projects to date was provided, including details on the site selection process to date and a summary of the likely infrastructure requirements. The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined, as presented in slide 9.	
3.	Updated on the up to date mapping of the onshore cable corridor. Showed the refined landfall locations, onshore cable route and two possible locations for the onshore substations. The process is still ongoing and will be refined at the next stage.	LT
4.	Current status  Scoping report in July 2022, consultation in September and October 2022. Now in process of preparing to submit PEIR. Formally going out to consultation soon. Showed new timeline of DCO application for Feb 2024, Examination 2024, consent potentially May 2025, construction 2026+.	LT
5.	<ul> <li>Purpose of meeting</li> <li>Explained the three questions being asked for the ETG.</li> <li>Do you agreed with the approach taken to collecting baseline survey data?</li> <li>Do you agree with the approach taken to the assessment to be presented in PEIR?</li> <li>Do you agree with the Biodiversity Net Gain Strategy?</li> </ul>	JF
6.	Summaries the surveys that have been undertaken to date and those which will be undertaken this year.  Winter bird survey first started in the winter of 2021. The area of search has changed significantly since then but some of the transects are still relevant. Land access in 2021 was extremely limited so surveys were undertaken from Public Rights of Way but the access has now improved so transects have been tweaked to address this.	JB
7.	Data was requested from the NEYEDC for data for encompass all original route options. A 2km buffer has been applied to the current onshore export cable corridor for species, SSSIs and non-statutory sites. A 10km buffer has been applied for statutory sites.  Due to issues with land access the Projects have not has the luxury of doing the habitat survey first. Therefore the programme for ecological surveys has been based on the desk study data, LIDAR and aerial imagery.	JB



8.	Habitat survey	JB
	Some habitat surveys were undertaken in summer 2022 which has helped fill gaps in the desk study. The rest of the habitat survey will be completed in summer 2023. UKHabs methodology has been used so it can feed into the BNG matrix.	
9.	Bird survey	JB
	Winter bird surveys have been undertaken in 21/22 and 22/23. Only one of the 21/23 transects is still within the current onshore cable corridor therefore new transects have been added for 22/23.	
	Breeding bird surveys were undertaken in 2022 and will be repeated this year with each transect visited five times.	
	Explained how the onshore cable corridor is predominantly arable landscape and not the most exciting. Typical birds plus a few barn owls. A pair of marsh harriers have been identified and surveys are ongoing to identify a nest site. Currently keeping a 200m standoff of where they think this nest might be and won't go near it until August to allow the birds to fledge and leave the nest.	
10.	Badger survey	JB
	Desk based information, LIDAR and aerial imagery has been used to scope the badger survey. Surveys ongoing and a number of setts have been identified (associated with small pockets of woodlands).	
11.	Bat survey	JB
	Ten transects were surveyed in 2022 (April to October), these will be repeated in 2023. Identifying the bat calls in moderately identified areas. Also categorised trees for potential bat roosts. Currently looking at about 400 trees and other areas of small woodlands.	
	The projects are not planning to remove any trees but if this was required then further work into bat surveys would happen. Until this is confirmed the project is not proposing to do activity work on any of those trees.	
12.	GCN surveys	JB
	eDNA surveys are being undertaken on ponds within a 250m buffer (based on desk study, aerial imagery etc.) Survey is currently underway.	
13.	Riparian mammal survey	JB
	Watercourses in the area are very heavily managed. The arable land is typical characterised by deep excavated ditches which the survey team have often found to be dry. Surveys for otter and water vole are ongoing both from the bank and on some occasions from a boat at the larger water bodies.	
	To date water vole activity has been identified but it has been quite localised. There has also been some otter activity. 80-90% of the ditches have been surveyed with the teams looking at a 50m extension outside of the current onshore cable corridor.	



	JR: Any signs of minke? JB: nothing yet	
14.	Other considerations	JB
	Desk study did not return many results for reptiles and terrestrial invertebrates. Waiting for the results of the habitat survey to confirm if further survey work is required for these species later in the year.	
	<b>JR</b> : Any invasive plant survey planned? <b>JB</b> : invasive species will be picked up as part of the habitat survey.	
	<b>GV</b> : in terms of surveys, grass snake comes to mind to look out for as they'll look to use the corridor at some point. There is also the marsh frog, which is invasive, as there has been a record of this so need to look out for. <b>JB</b> : grass snake is difficult to survey as the concentrations are always really small. Not like slow worms.	
	<b>GV</b> : from a practical point of view it would be to look at breeding habitats for grass snake. <b>JB</b> : noted, thanks.	
	<b>NW:</b> impacts on functional land at the southern tip of the Humber? <b>LC:</b> fairly certain this has been looked at in the PEIR and will come onto this in the next slides.	
15.	Assessment scenarios	JF
	The PEIR considered multiple development and construction scenarios. Full details were presented as per slides 22-27.	
16.	Ecology assessment	LC
	Brief overview of the conclusions of the Onshore Ecology PEIR chapter. In areas where surveys have not been completed, made a worst case presumption that protected species would be present.	
	A summary of the assessment methodology, baseline, mitigation measure and impacts that are presented in the PEIR chapter.	
17.	BNG strategy	LT
	BNG will be presented in the ES once all the habitat data has been collected. The PEIR outlines the BNG strategy the projects plan to use.	



	<b>LT</b> : It would be our expectation to deliver the BNG onsite within the red line boundary. Not expecting to have to deliver a huge amount of BNG as it is part of arable land. Trenching is also not as big of an issue in terms of BNG. <b>LC</b> : thinks there will be plenty of scope for improving onsite.	
18.	Any questions	JF
	<b>NW</b> : general questions about lamprey? Freshwater ecology is not my expertise, have they been considered? <b>RJ</b> : River Hull is pretty poor for lamprey, whereas the Humber is far more common and widespread. <b>JB</b> : River Hull should have minimal disturbance as will HDD underneath it.	
19.	Closing regards	JF
	Thanked everyone PEIR consultation to be published at the end of May/beginning of June and we will be in touch with everyone once the consultation beings.	



# **Meeting Minutes**

Dogger Bank South Non-Kittiwake Compensation Meeting						
Document Number: PC2340-RHD-ON-ZZ-MI-Z-0039						
Meeting with:		Expert Topic Groups				
Location:		Online				
Start Time of Meeting:	2pm	Date of Meeting: Tuesday 9th May 2023				
Attendees	Initials	Role & Organisation				
	AC	Offshore Consents Manager, RWE Renewables				
	PB	HRA Manager, RWE Renewables				
	HP	Graduate Consents Intern, RWE Renewables				
	HC	Project Manager, Royal HaskoningDHV				
	PP	Offshore Wind Technical Director, Royal HaskoningDHV				
	CC	Offshore Technical Support, Royal HaskoningDHV				
	MT	Principal Ornithologist, MacArthur Green				
	EJ	Senior Responsible Officer, Natural England				
	RJ	Senior Ornithology Specialist, Natural England				
	RPV	Offshore Wind Marine Lead Advisor, Natural England				
	PC	Offshore Wind Marine Lead Advisor, Natural England				
	RR	Natural England				
	KW	Marine Licensing Case Officer, Marine Management Organisation				
	JS	Case Manager, Marine Management Organisation				
	PC	Marine Management Organisation				
	JK	Marine Management Organisation				
	AM	RSPB				
	AD	RSPB				
Apologies						
	ET	Offshore Industry Advisor, JNCC				
	TD	The Wildlife Trusts				
	СР	The Wildlife Trusts				
	JC	Lincolnshire Wildlife Trust				



Meeting Agenda/	Discuss potential compensation measures for non-
Objective(s):	kittiwake species
Supporting Material	PC2340-RHD-ZZ-ZZ-PP-Z-0031 Non-Kittiwake Compensation Call Slides

Item	Description/ Discussion	Presenter
1.	Welcome and Introductions	PB
2.	Compensation Measure Discussion Non-Kittiwake Species Under Consideration  Razorbill; Guillemot; and Gannet.  PB - Second year of survey data not yet analysed at this point  Potential Compensation Measures Artificial colonies  PB - Limited evidence of use by gannets.  RJ - Aware of guillemot and razorbill nesting on offshore platforms, not as much as kittiwakes, potentially due to space constraints, not out of the question for auk species. The right structures could encourage use by auk species. Would require study.	YS
	AD – Not sure where the evidence base is for use of artificial colonies by auks, or how replicable the previous cases of nesting can be.  PB – May be further evidence out there we have not seen. Will always be a gap in the understanding regarding productivity.  EJ – Would agree the evidence base is weak for it, Orsted surveys showing guillemot nesting on artificial structures was not targeted at that species (was for kittiwake). Given they were nesting there though, could be scope to investigate auk nesting further. Evidence base won't be available for the Projects, but merit on keeping this option on the table.  RJ – Agree, worth looking into further.	
	<ul> <li>Prey management</li> <li>PB - Not a project level measure.</li> <li>RJ - Consultation ongoing regarding sandeel fishery management, may be worth considering other prey species, sprat being the main one.</li> </ul>	



PB - Fisheries closure or reduction in vessels?

RJ – Would need investigating further to determine the benefit of either option.

PP – Doesn't affect the underlying conclusion that not viable for a project to deliver such a measure itself. No legal way of removing vessels fishing for specific species.

PC – Is this call focusing on project level measures or the strategic side of things?

PB – Primarily at DBS project level, but RWE would work strategically if opportunity arose. Want to manage within our timescales best we can. Have had discussions with Outer Dowsing, happy to talk with other developers.

# Designation of additional SPAs

PB – No additional opportunities to designate SPAs, is my understanding.

AD - Would agree with this.

EJ – We agree on this, did wonder if links could be made with the work ongoing with the Dogger Bank SAC, and if any links could be made between prey species within the SAC and gannet, guillemot and razorbill.

PB - Is worth thinking about.

AD - Could you please elaborate on the work with the Dogger Bank SAC?

PB – Under the Crown Estate discussions, identifying compensation measures currently with wider group, one option is to designate new site or extend existing site.

EJ - Not sure of the linking of SAC designation/extension and prey species benefits is a workable idea, but one to consider.

PP - May be beneficial for other features so definitely one to think about.

# Reduction of By-catch

RJ – Lot of work being done on this at the moment, worth looking into bycatch for gannet outside of English waters, such as West Africa and Iberian Peninsula.

PB - Much evidence of gannet bycatch in these areas?

RJ - Yes think there is a good evidence base for this available.



- AD General challenge with this is the level of connectivity between the area of impact and the project itself.
- RJ Would say the connectivity is established between the gannets at Flamborough and the areas outside English waters, would be a shame to take off the table at this point.
- AD Not sure how would work in other countries, would require further evidence gathering. How would the research timetable tie in with DBS timescales.
- RJ Would depend on what is out there already, would suspect there is a fair bit on this topic specifically, larger issue is the implementation of such a measure.
- PP Would likely fit into a wider suite of measures, not like for like but would commit to commission a study, fulfilling a research need as opposed to specific mitigation.
- PB What methods are there to reduce gannet bycatch?
- RJ Are fishing methods used that are not used in the UK, e.g. long-line fishing, could look into reducing such methods.
- AD This came up in Hornsea 4 also, need to understand the fishing activities and how it connects back to the UK populations. Sense is the timelines are difficult for such a measure. Haven't seen a robust evidence base from Hornsea 4 in regards to auks.
- AD Difficulty with this measures is that we have not seen an example that works so far for guillemot and razorbill bycatch based on what's been trialled. Will keep reviewing however.
- PB Any measures that DBS could contribute to this?
- AD Would have to go back to our by-catch specialist, trialling the same techniques as used in Orsted trials. RSPB studies will be issued for peer review. Looming-eyes buoy not a viable mitigation measure at this stage. Likely not a long-term solution sadly.
- RJ Might still be feasible to be part of a trial of a new potential measure, should one be formulated,
- AD RSPB working with partners on its own Looming-eye trial, draft results were not looking promising. Need to understand what they would be looking to develop next, not sure if they have any ideas for future techniques, will take this away to the team.
- PB Happy to work collaboratively with on this.
- PP Assume this was under the latest submission to Hornsea 4?
- AD Will check to find link on PINS site and share with everyone.



Post meeting note – RSPB H4 submissions re bycatch management (and predator eradication) linked below: RSPB6-069:

https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010098/EN010098-001917-

Royal%20Society%20for%20the%20Protection%20of%20Birds %20-

%20Comments%20on%20any%20other%20submissions%20received%20at%20Deadline%205a%202.pdf

Post-examination (dated 9 March 2023) - see pages 24-29 and 44-52 re bycatch

https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010098/EN010098-002247-RSPB%20-%20SoS%20Consultation%20Response.pdf

RJ - Might be worth talking to Orsted about their work also.

PB – Although we need measures in place for examination, they don't need to be in place until impacts are actually occurring.

EJ - Have a call with Hornsea 4 about auks soon, results of their trial should be available now, can ask if they are planning to submit to plans and thus in public domain?

PB - Yes that would be helpful, will get in touch with them also.

### Predator management

PB – Lists available of predators on islands e.g. rats and cats, notably on some Scottish islands.

RJ – Leaving aside whether its possible, issue is there is not a lot of evidence on this technique. Cases of rat eradication are recent, cannot tell yet of these have had a positive impact on species numbers, would take long-term monitoring to be sure of this. Not sure on the scale of the benefits at this stage. Can it be done somewhere that's not in English waters.

EJ – H4 looked at eradication on the Scillies but ruled it out, partially PR related and also the main islands are too connected, makes reinvasion likely.

RJ – Scillies also have rats that don't predate on guillemot and razorbill.



- EJ There was discussion around islands that don't have guillemot and razorbill now but did historically, could eradication help there? Evidence on this is difficult to find right now.
- RJ Places where nests are actually accessible to rats, some evidence that they have started nesting in areas around sheer cliffs e.g. boulder fields.
- PB Outer Scillies are interesting, are Defra funding NE to control predators on the Scillies?
- RJ Some islands have had eradication, a few months since I have been in the loop on this work.
- EJ Can take away and look into this.
- PB Is the principle of predator removal from islands considered a potential compensation measure?
- EJ Principle is sound, evidence base is limited as previous examples not related to guillemot and razorbill, on principle could be taken as compensation.
- RJ Was some questions regarding the Isle of Wight, logistical issues however, given lack of seabirds maybe should be investigated further.
- PB Some logic to islands being recolonised by previously present species.
- AD Potential for reinvasion by predators is high in locations with large human populations such as the Isle of Wight.
- PB As a principle the measure is on the table still.
- RJ Once you move further afield, harder to prove connectivity. Remaining Scillies islands for eradication not yet decided on.
- AD One of the things I understand regarding guillemot and razorbill is that connectivity is limited regarding mixing with other colonies, not moving around vast areas of marine environment. Tend to have specific breeding and feeding areas. Something within the UK would increase likelihood of improving the UK network however,
- RJ Question of where other juveniles go, with gannets there is a clearer link between UK population and those in Iberia/West Africa.



## Additional or resilience measures

PB – Lot of previous discussion on fish habitat enhancement, e.g. seagrass beds. Would restoration of such habitat be considered compensation for birds?

EJ – Probably not considered to be compensation. Came up with Hornsea 4 suggesting seagrass restoration, NE decided against this as could not quantify benefits. Hornsea have taken forward anyway. Would not suggest going further on resilience measures. Moving towards a time where net gain is something to consider. Carrying out such work would not push another separate measure over the line to be considered sufficient compensation.

# Marine recovery fund

PB – We consider contribution to a recovery fund to be compensation.

EJ – Unclear form BEIS and Defra whether they will allow that to be considered compensation.

PC - Defra looking to have a view on this by June this year.

PB – Current timelines I've heard is that legislation come through beginning of next year, setup around Q2 next year.

#### OWIC Studies

PP – Know these studies are going on, might be a vehicle for compensation. A lot going on so difficult to deliver to the different timescales.

PB - Could support these studies as strategic compensation.

PC – Understanding on acceptability is that has not yet been ironed out just yet, not sure how would align with DBS timescales,

PB - Timescales are certainly tight

RJ - Something to keep an eye on and see how it turns out.

### Thoughts from Stakeholders

RJ – Have you seen the 2021 MacArthur Green report on seabed compensation options?

PB - Yes we have thank you.

PB – What does everyone consider to be the Most effective measures potentially?



	EJ - Difficult to say right now, each one has a key evidence gap. From todays discussion alone, by-catch off West Africa might be a good option to examine further.	
	RJ – Other thing we have not talked about yet is bird flu and if anything can be done regarding mitigating this, sadly still up in the air at this time.	
	MT – Wondered what NEs views were on the hierarchy of options? What if we could compensate for another species opposed to the guillemot etc? Would such measures be admissible?	
	RJ – Would have to take this away to discuss, hierarchy would be same species and location, then same species different location, have no yet heard anyone discussion benefitting other species.	
	PP – Different species compensation would be bottom of the hierarchy, question is that are NE engaged in such discussions?	
	RJ - Personal feeling is that it would be of limited use, would have to take away internally to discuss, would not just be up to us to determine if was valid compensation. Is worth thinking about though. There is the mitigation hierarchy before you even get to compensation measures. Would need reasoning to rule out all previous mitigation/compensation options.	
3.	Next steps and summary of actions PB – We Will collate and issue a report detailing all of the measures under consideration, look to have another meeting later in the Summer to discuss this subject further.	PB
1		I



# **Meeting Minutes**

	Dogger Ba	nk South H	listoric Environment ETG5 Meeting		
	Documen	t Number:	PC2340-RHD-ON-ZZ-MI-Z-0040		
Me	eeting with:		Expert Topic Groups		
L	_ocation:		Online		
Start T	ime of Meeting:	10am	Date of Meeting: Wednesday 10th M	ay 2023	
Д	Attendees	Initials	Role & Organisation		
		DB	Offshore Consents Manager, RWE Rene	ewables	
		HP	Graduate Consents Intern, RWE Renev	vables	
		VB	Offshore Archaeology Lead, Royal Hasko	ningDHV	
		CM	Marine Geoarchaeologist, Royal Haskon	ingDHV	
		CC	Offshore Technical Support, Royal Hasko	ningDHV	
		TM	Wessex Archaeology		
		ST	Wessex Archaeology		
		SC	Marine Planning Archaeologist, Historic	England	
Apologies				1	
	AH Science Advisor, Historic England				
	• Discuss the approach to the geophysical assessment and approach to geoarchaeological assessment for Dogger Bank South				
Suppo	orting Material	_	C2340-RHD-ON-ZZ-PP-Z-0032 Historic Env G5 Slides	ironment	
Item		Desc	ription/ Discussion	Presenter	
1.	Welcome and Introductions  VB led introductions and provided background to the meeting objectives			DB	
2.	Project Update				
	DB provided an outline of project status and progress.				
	SC - Figure suggests that offshore platforms could be outside the array areas, is this correct?				
			ve between 0 and 2 platforms along the		
	-		or. One platform would be to connect into second platform could be a RCP.		
			e of the offshore export cable corridor?		
	DB - Yes that's no	•	·		



3.	<ul> <li>Submerged Prehistory</li> <li>CM - High potential for discovery of Palaeolandscape features and peat and other deposits of archaeological interest.</li> <li>Maritime and Aviation</li> <li>VB - 78 UKHO/NRHE records, 14 'live' wrecks. Nothing further to add beyond what was discussed in the previous ETG held earlier this year.</li> </ul>	VB
	Approach to Assessment of Marine Geophysical Data TM – New assessment approach largely borne from the amount of data that is generated for each project, 10's of EIAs coming soon in the short term, need to do something fit for purpose at EIA. Wanted to find a method that made more sense than assessing all the data acquired. This approach is an ongoing development.  SC – Sounds like it is striking the right balance in terms of workloads. We can be reasonably flexible as we have been with other projects in the area.  TM – Aiming to be significantly better than a wreck detection system, post-EIA surveys will be very high resolution, we apply the appropriate level of fidelity at the appropriate stage of the surveys.  Array and Export Cable Routes  ST – Have not looked at sub-bottom yet, mainly looked at Fugro data so far, have almost all the data. Looking to apply a selective approach in the array area.  Rationale for Selective Approach in the Array Areas  ST – Big areas to assess, trying to make the assessment more efficient.  Alternative Approach to Assessment  ST – Array area and ECR will be assessed slightly differently. ECR will be assessed in a standard approach. Array is being assessed using a selective approach, based on target size parameters.  Array SSS methodology  ST – Using mosaics and a 250m grid system for data reviews. System is working very efficiently, allowing good tracking of work completed.  Targets with dimensions 5m or over are being tagged for characterisation.	TM/ST



ST – High frequency and low frequency mosaics have been compared. Low frequency has slightly wider coverage. High frequency has more clarity.

SC – From the approach taken, you've got a threshold for examining things more closely, essentially to screen out smaller points, could you use the raw data at completely new sites to attain a bit more info on these areas?

TM – We have allowed time to high-grade some sites and go back to the raw data if we feel its better to do this. Just want to maximise the effectiveness of the raw data we look at.

VB - Phased approach, looking at different in a different way, we know UKHO data is fairly inaccurate this far offshore, be interesting to see how the data matches up further down the line.

SC – UKHO data does show patterns or clusters of features which could constrain construction.

VB – A lot of the 'clustered' features recorded are anomalies associated with geophysical assessments for other projects in the area rather than confirmed archaeological features (e.g. debris, natural features and boulders).

SC – The more that can be done now to identify where it will be tricky to navigate a cable through now, the better.

VB – Benefit of using the geophysical contact list alongside archaeological assessment, can see quickly where all the boulder fields are and screen out natural features.

TM – Point of this approach is to be able to be reactive, getting everything we need at EIA but not needing to mine the entire dataset.

# **Array MBES methodology**

ST – Wessex have been looking at MBES geotiffs and data within Fledermaus. Get more detail from Fledermaus including height. Both approaches work fine, only minimal time saving in using GeoTiffs so using Flerdermaus is likely a suitable choice.

TM - The geotiffs have been encoded with height data.

ST – Yes they have, but will get more detail in the software. We can view data in true 3D in Fledermaus.

VB – If geotiff approach working for the sidescan data, gives us balance to use Fledermaus for the bathy data.

## **Array mag methodology**

ST – The untagged anomalies are within the broad background register, currently using a 20 nT threshold.



	VB -This approach of choosing threshold on per project basis makes	
	sense.	
	SC - Approach looks good.	
	TM – Mag has been acquired down a narrow range, in this block we have to accept that 90% of the area is covered by a dataset not sensitive to 100's of nT. Have to go back to data as acquired.	
	VB – In summary, trying out the planned approaches to data review, we think this approach is working effectively. Will keep you updated on this approach as we continue.	
	SC - Has been helpful to review in these more detailed examples. Will this be presented in PEIR?	
	VB - Approach has not been used in PEIR, will be presented in ES.	
	SC - In terms of PEIR, with DCO following in February, how much of this work would be integrated into EIA?	
	VB - The intention that all work will be in the final ES. Priority will be to understand the distribution of results.	
	SC – As long as its explained in PEIR how this will work and the approach will be undertaken, should not be a problem.	
	VB – Will discuss this with you again prior to ES submission.	
5.	Approach to Assessment of Marine Geotechnical Data	VB
	CM – Boreholes are the yellow dots on the figure. No surprises in the	
	borehole results. There was a sequence of alluvium and peat	
	recovered in borehole 5. The samples have been retrained and	
	secured. Not sure if there is wood in this core, can be assessed further.	
	CM - Geotech survey planned for this year, primarily in the ECR. Standard procedure for reviewing of logs in place. Sub-bottom profiler data interpretation has been reviewed and high amplitude anomalies were identified indicating potential peat in nearshore. Provisions have been in the gsurveys to acquire a vibrocore from one of the areas of anomalies identified. Core will be taken in an opaque liner for OSL dating.	
	CM – Smithic Bank, I think the anomalies sit within marine sands, from a formation perspective not sure how peat deposits could be found near this location. Will test with the core data.	
	SC - Potential to evaluate what the anomalies are is a good call. Over	



works to continue without undertaking archaeological works. No other comments at this time.	
SC – is there a prosect that a post-consent geo-tech campaign may happen?	
VB – Yes would imagine so.	
CM – reviewing the Fugro interpretation of sub-bottom profiler data has been very helpful at this stage as the archaeological assessment of sub bottom has not yet started.	
VB – Wessex will be looking at sub-bottom data in due course.	
Summary and Next Steps	
SC - When will this all be pieced together?	
VB – By the end of summer, expectation is that array area will be complete for at least one project and work will have begun on the ECR. Are looking at tight time schedules. Wanted to make sure the approach was working before getting everyone working to this approach.	
SC - can we look at getting a date in the calendar soon.	
DB – Geotech work should kick off towards end of May, due to last a couple of months. Starting inshore and working offshore. Array area geotech scheduled for 2024.	
VB – Will look to get another date for a meeting in the diary soon.	
Actions	
Haskoning to provide ECR shapefile to Historic England, together with minutes and slides from the meeting	
	other comments at this time.  SC – is there a prosect that a post-consent geo-tech campaign may happen?  VB – Yes would imagine so.  CM – reviewing the Fugro interpretation of sub-bottom profiler data has been very helpful at this stage as the archaeological assessment of sub bottom has not yet started.  VB – Wessex will be looking at sub-bottom data in due course.  Summary and Next Steps  SC – When will this all be pieced together?  VB – By the end of summer, expectation is that array area will be complete for at least one project and work will have begun on the ECR. Are looking at tight time schedules. Wanted to make sure the approach was working before getting everyone working to this approach.  SC – can we look at getting a date in the calendar soon.  DB – Geotech work should kick off towards end of May, due to last a couple of months. Starting inshore and working offshore. Array area geotech scheduled for 2024.  VB – Will look to get another date for a meeting in the diary soon.  Actions  Haskoning to provide ECR shapefile to Historic England, together with



	DBS Offsh	ore Wind Farn	ns Onshore Heritage Ex	port Topic Group	
		Document	<b>Number:</b> 004813114-	-01	
Me	Meeting with: Onshore Heritage Expert Topic Group				
	Location:	Online - Microsoft Teams			
Start T	ime of Meeting:	15:00	Date of Meeting:	25 <sup>th</sup> May 202	23
A	Attendees Initials Role & Organisation				
		LT		RWE	
		AB		RWE	
		RN	Humber /	Archaeology Partnership	
		AH	I	Historic England	
		JF		RHDHV	
_		FB		RHDHV	
		MJ		RHDHV	
_		VY		AOC	
-	SP AOC				
		JL	JL AOC		
Apologies		Initials	Role & Organisation		
	ting Agenda/ bjective(s):	- Onshor	re Archaeology and Herit	tage Update	
Item		Desc	cription/ Discussion		Presenter
1.	Welcome and Intr	oduction			
	1		lves and their role in rela ctives of the meeting wa		JF/LT
2.	Project Update				
	the array cables, conshore substation	Explanation of project site and landfall given by <b>LT</b> . Recapped the wind turbines, he array cables, offshore export cables, landfall, onshore export cables and onshore substation at Creyke Beck (the key elements).  An update on the DBS offshore wind farm projects to date was provided,			
	including details o infrastructure requ		tion process to date and	l a summary of the likely	



	Updated on the up to date mapping of the onshore cable corridor. Showed the refined landfall locations, onshore cable route and two possible locations for the onshore substations. The process is still ongoing and will be refined at the next stage.	
4.	Current status  The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined, as presented in slide 9.  PEIR Submission in June 2023. Showed new timeline of DCO application for Feb	LT
5.	2024, Examination 2024, consent potentially May 2025, construction 2026+. <b>Assessment scenarios</b>	JF
	The PEIR considered multiple development and construction scenarios. Full details were presented as per slides 11-16.	
6.	Documents shared with ETG  FB outlined the current documents shared with ETG. Two key questions asked question on EIA strategy and WSI status/feedback to HAP and HE.  RN - Standard approach - no comment on EIA strategy.  AH - comment on Geoarch work only revolving around GI, asked if any areas warrant specific geoarchaeological investigation.  FB - AOC report will address this.  VY - agreed bespoke strategy will be included in later phases.	FB
7.	Data provided at PEIR  PEIR chapter informed by DBA, APS, Geoarch DBA, Geophysical Survey report, setting & heritage walkover.  Data gathered for PEIR will continue to inform iterative design process, site selection and route options refinement.	FB
8.	Update on data collected to date  Geophysical survey update total of 500ha over Onshore Development Area (ODA) (1200ha) which will still be subject to route refinement.  JL provided overview of geophysical survey results that has been done to date.  RN commented that it is a positive that the project is using geophysics to inform the route. However full coverage must complete prior to trial trenching, would not be sympathetic in percentage trenching coverage required if areas remain not surveyed.  FB – Every intention of carrying out geophysical survey across all areas post-harvest.	FB/JL
9.	Nunkeeling  FB & LT outlined Nunkeeling issue around Nunkeeling DMV and NG high pressure gas main pinchpoint. RWE Renewables are working through options to avoid/reroute/design around Nunkeeling, but worst case scenario involves having to push cable route to the western side of the ODA and open trench through Nunkeeling DMV area.	FB



	Key questions presented, value of Nunkeeling DMV? Asked what would be HAP's stance on this?	
	RN - the DMV would be Schedulable Quality (National Importance). RN advice would be to try and avoid the site. Would not accept trial trenching in this area, in the event of worst-case open cut trenching through this area RN would expect to see an approach which allows for full excavation and preservation by record. However, RN would rather the area was avoided and not have to excavate.	
10.	Geoarchaeological Desk-Based Assessment  Described Geoarch assessment to date & key findings outlined areas of potential.  AH – addresses questions earlier on geoarchaeological work.  VY – notable points where boreholes are outside RLB for additional context, geophysical survey data will be integrated.	FB
11.	WSI for investigation for trial trenching & trench plans	FB
	Single overarching WSI with trench plans as separate addendums. Programme to start at substations/landfalls then move to cable corridor once it has been refined to a point where trenching can be reasonably planned.	
	Outlined process for moving trenches	
	RN – Happy with overarching WSI and agreeing trench plans on a rolling basis. HAP would expect to be consulted on any trench that has been moved	
12.	Contingencies	FB
	RN - HAP would agree to this, additional detail in WSI. Like to see proportionate trenching targeted the unknown in order to sufficiently characterise any potential masked features not apparent in the geophysical survey results.	
13.	Trench Plan Review	FB/MJ
	RN - HAP will want to see percentage coverage of areas included within the WSI but not blanket coverage across the Project MJ - RHDHV to provide the % sample number within the WSI/trench plans	
14.	Key Questions Outcomes	FB
	RN – yes, practical response. HAP will give sign off for trench plans on a rolling basis. Asked for slides to be shared.	
	FB – yes will share. Want to agree process to ensure sufficient information to support HAP's response for examination.	
	RN suggested interim reports for areas that have been trenched then pull together overall routewide results into final report.	



	Documen	t Number: 004870673-01		
Meeting with:		East Riding of York	shire Council (ERYC)	
Location:		Teams		
Start Time of Meeting:	10:00	Date of Meeting:	23/06/2023	
Attendees	Initials	Role & Organisation		
	ST	Transport Planner	at Royal HaskoningDHV (RHDHV)	
	AA	Transp	ort Planner at RHDHV	
	AF	Transport De	velopment Manager at ERYC	
	IS	Service Manager fo	or Area 3 and maintenance at ERYC	
	AA	Area	1 Engineer at ERYC	
	TW	Area	5 Manager at ERYC	
	MB	Service M	anager for Area 3 – ERYC	
Apologies	Initials	Ro	le & Organisation	
n/a				
Weeting Agenda/ Objective(s):	_	e of the meeting is to discusses initial feedback.	s with the ERYC indicative access desig	

Item	Description/ Discussion	Presenter
1.	Welcome and Introduction	ST
	ST provides a brief introduction and a round of introductions.	
	ST clarifies that the Projects are currently consulting on the Preliminary Environmental Information Report (PEIR) and this includes outline detail of accesses. ST noted that the purpose of the meeting is to present indicative design work for access options and noted that these designs would be subject to the outcomes of the ongoing consultation.	



Item	Description/ Discussion	Presenter
2.	Access Strategy  ST recapped the access strategy discussed at the previous ETG noting that some locations would be utilised for access for employees and HGVs and other locations would be for crossing of the highway only (haul road crossings).	ST
	ST asked if the level of detail shown on the plans (junction geometry, highway boundary and visibility splays) would be acceptable to ERYC for the DCO application. AF noted this level of detail would be acceptable, however AF requested that swept path analysis (SPA) drawings should also be included for all accesses.	
	ST agreed that SPA would also be included for the DCO application for all accesses. IS requested that the drawings included a key plan to allow the accesses to be located. ST agreed this would be a good idea and committed to including these on the plans.	
3.	Review of Crossings 1B, 2A, 3A, 4B, 5B, 6A, 7B, 8A, 9B (Area 5)  ST noted that visibility splays of 90m were proposed for crossings 1B, 2A, 3A, 5B, 6A, 8A, 9B and 120m for crossings 4B and 7B where traffic flows and speeds were considered to be low. TW agreed that 90m and 120m splays were appropriate at these locations noting that traffic flows and speeds were low.	ST
	TW confirmed ERYC have no concerns with the outline crossing designs for crossings 1B, 2A, 3A, 4B, 5B, 6A, 7B, 8A, 9B.  ST asked if temporary speed limits (TTROs) would be required at this location. AF and TW advised that this would not be required.	
4.	Review of Access 1B, 2A, 3B, 4, 7A, 7B (Area 5)  ST presented plans for access 1B, 2A, 3B, 4 and 7A/7B. ST noted that visibility splays at these locations was in accordance with measured speeds.  TW noted no concerns with 1B, 3B and 4.  Access 2A. TW noted no concerns with the access design but noted potential for conflict with existing HGV traffic utilising Dunnington Lane and damage to the highway road surface with additional HGV traffic. ST confirmed that the DCO application will include detail of measures such as road widening/ new/extended passing places to reduce this conflict along this road.  AF noted that the road would need to be widened opposite access 2A to allow vehicles to turn in and out. ST confirmed that this will be included.  TW noted that SPA of the junction with the A165 will need to be presented to show two HGVs can pass at this location. TW noted a culvert and overhead power line at this location as a potential constraint. ST agreed that the DCO application would include SPA analysis at this location.	ST
	Access 5A. Noted potential concerns with an access at this location as the road is busy and has seasonal traffic. <b>Action 1</b> – ST to issue copies of the access 5A to TW to review and revert with comments.  Access 7A, 7B. Agreed that as the road is a main A road, a temporary 40mph speed limit and warning signage should be provided. ST agreed this would be included.	



Item	Description/ Discussion	Presenter
5.	Review of Crossings 10A (Area 3)  ST noted that a visibility splay of 90m is proposed for crossing 10A where traffic flows and speeds were considered to be low. IS agreed that a 90m splay was appropriate at this locations noting that traffic flows and speeds were low.  IS confirmed ERVC have no conserve with the outline grassing designs for grassing 10A.	ST
-	IS confirmed ERYC have no concerns with the outline crossing designs for crossing 10A.	C.T.
6.	Review of Access 8 (Area 3)  Access 8 – ST noted proposals to provide this access as a left in left out access opposite the existing caravan site access. Visibility splays are in accordance with the speed limit. This would allow use of the existing wind turbine access. IS and AF agreed this access location was acceptable but that a physical island should be provided to enforce the left in left out rather than a hatched island shown. ST agreed to amend the plan to show this.	ST
7.	Review of Access 9B and 9 (Area 3)	ST
	Access 9B and 9. ST explained that there are two options at this location, Access 9 would utilise the existing farm accesses whilst 9B would provide new accesses if the landowners did not agree to the use of the existing accesses. ST noted that visibility splays at this location were in accordance with the speed limit.	
	IS noted that access 9 had been used for the previous Dogger Bank projects and ERYC would have no concerns with their use. If 9B needed to be used IS noted that visibility was acceptable but the design should include provision to allow pedestrian and cycles to cross the cycleway to the north. ST agreed to amend the design to include footway/cycleway crossing. ST noted that at this stage both options would need to be retained until discussions with landowners had been finalised. IS noted both options would be acceptable.	
8.	Review of Access 10A (Area 3)	ST
	ST noted that a visibility splay of 90m is proposed in accordance with measured speeds. IS agreed that 90m splay would be appropriate at this locations noting that traffic flows and speeds were low. ST noted that measures to allow HGVs to access via Eske Lane would be included within the DCO application.	
	IS confirmed ERYC have no concerns with the outline access designs for access 10A. IS noted however that the road structure needs to be surveyed. AF confirmed that this can be captured within the outline Construction Traffic Management Plan (CTMP) and secured by a DCO Requirement to produce a final CTMP.	
9.	Review of Access 11A (Area 3)	
	ST outlined two options to access the section of cable route and that the preference locations was 11A as this was in a lower speed section of the A1035. IS confirmed that ERYC agreed this was the preferred location. ST confirmed that visibility splays are in accordance with the speed limit. IS confirmed ERYC have no concerns with the outline designs for access 11A.	
10.	Review of Access 12 (Area 3)	ST
	ST outlined that a new option was being considered from the A1035 to possibly avoid conflict with a proposed recycling centre and football pitches. This option 12B would be provided as a left in left out junction from the A1035 and visibility splays are in accordance with the measured speed. IS confirmed that ERYC were happy with this to be included as an option but would prefer access from Ings Road is the road was widened.	



Item	Description/ Discussion	Presenter
11.	Review of Access 14A (Area 3)  ST noted that visibility splays in accordance with measured speeds can be provided. IS noted that the designs should be updated to include crossing for the cycleway. ST agreed to make this change. IS confirmed ERYC have no other concerns with the outline design.	ST
12.	Review of Access 13B (Area 3)  ST noted that visibility splays in accordance with the speed limit can be provided and that access would be provided from a new left in left out junction. IS noted that the designs should be updated to include crossing for the cycleway and a physical island (rather than a hatched island). ST agreed to make these changes. IS confirmed ERYC have no other concerns with the outline design.	ST
13.	Review of Access 15B (Area 3)  ST noted that visibility splays in accordance with measured speeds can be provided. IS confirmed ERYC have no concerns with the outline design.	ST
14.	Review of Access 16A and 16B (Area 3)  ST noted that visibility splays in accordance with measured speeds can be provided. IS noted that the designs for 16B should be updated to include crossing for the cycleway including a central refuge as the footway/cycleway is well used including by school children. ST agreed to make these change. IS confirmed ERYC have no other concerns with the outline design.	ST
15.	Review of Access 18 (Area 3)  ST noted that visibility splays of 90m were proposed for Access 18 where traffic flows and speeds were considered to be low. IS agreed that 90m splays were appropriate noting that traffic flows and speeds were low.  IS noted a potential underpass of the A164 that could be considered to allow traffic to cross the A164.	ST
16.	Review of Substation Zone 4 Access (Area 3)  ST noted that visibility splays in accordance with the speed limit could be provided and that an access would be provided from the layby from the A1079 as previously agreed with ERYC. The layby would be extended to ensure no loss of parking space. IS confirmed ERYC have no concerns with the outline design.	ST
17.	Review of Substation Zone 1 Access (Area 3)  ST noted that visibility splays in accordance with the speed limit could be provided and that an access would be provided from a new southern arm with the A164 roundabout before crossing over Shepherd Lane as previously agreed with ERYC. ST enquired how ERYC considered that Shepherd Lane should be crossed. It was agreed that the substation access road would cross Shepherd Lane via a priority junction and that that gates would be provided either side of Shepherd Lane on the substation access road to prevent unauthorised access.  IS confirmed ERYC have no concerns with the outline design.	ST



Item	Description/ Discussion	Presenter
18.	Review of Access 17 (Area 3)	ST
	ST outlined three options to access the area between the A1079 and A164. The first option would be provided in the same location as Hornsea Four either sharing access (subject to agreement) or implementing the same access design if Hornsea Four did not go ahead. IS confirmed ERYC have no concerns with the outline design from the A1079.	
	ST outlined the second option would be to utilise the access to Jillywood Farm from the realigned A164, IS confirmed that ERYC have no concerns with this approach.	
	ST outlined that an option to cross the A1079 via the existing farm overbridge was also included but noted that ERYC had previously advised that the bridge was subject to a 40tonne weight limit and may not be suitable for all vehicles.	
19.	AOB	ST
	ST noted that following the completion of the Section 42 PEIR consultation the Projects would like to talk again to ERYC and discuss any consultation feedback they may have and as well as discussing the approach to the assessment and mitigation of capacity and road safety for the DCO application.	
	Action 2: RHDHV to organise a third ETG meeting.	



	DBS Off	shore Wind Far	rms Noise and Air Quality Expert Topic Group	
		Docum	ent Number: 004868241-01	
Meet	ing with:		Noise and Air Quality Expert Topic Group	
Loc	cation:	Online – Microsoft Teams		
Start Tim	e of Meeting:	10:00	<b>Date of Meeting:</b> 3 <sup>rd</sup> July 2023	
Att	Attendees Initials Role & Organisation			
		LT	RWE - Onshore Consents Manager	
		AB	RWE - Onshore Contests Lead	
		RH	RHDHV – Onshore Lead	
		JF	RHDHV – Onshore Support	
		SMa	RHDHV - Air Quality Lead	
		SV	SVA – Noise Lead	
		ML	SVA – Noise	
_		MS	East Riding of Yorkshire Council - Principal Planni	
_		DW	Hull City Council - Air Quality Office	
_		JT	East Riding of Yorkshire Council - Principal Officer (Air Qualit	
_		AG	Hull City Council - Environmental Health Of	
		SMo	Hull City Council - Principal Town Planner	
Арс	ologies	Initials	Role & Organisation	
	g Agenda/ ective(s):		East Riding of Yorkshire - Noise an update on the PEIR air quality assessment an update in the PEIR noise assessment	
Item		D	Description/ Discussion	Presente
	Welcome and	Introduction		RH
			nselves and their role in relation to the projects. An objectives of the meeting was provided.	
	Project Upda	te		LT
	the array cabl	les, offshore exp	d landfall given by <b>LT</b> . Recapped the wind turbines, port cables, landfall, onshore export cables and Beck (the key elements).	
	including deta		re wind farm projects to date was provided, election process to date and a summary of the likely	



The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined, as presented in slide 9.	
Statutory Consultation running 6 <sup>th</sup> June to 17 <sup>th</sup> July.	
Showed timeline of DCO application for Feb 2024, Examination 2024, consent potentially May 2025, construction 2026+.	
Noise – Baseline	SV
Baseline data has been collected around the two substation zones included in the PEIR (Zone 5 is also shown in the slide deck but this substation has now been removed). Due to weather conditions not all baseline surveys were completed in time to be included in the PEIR but they have now all been completed so will be included in the ES.	
The location of the noise monitoring equipment had previously been agreed with the ETG.	
Noise – Construction Noise and Vibration	SV
The PEIR focuses on noise and vibration impacts of the landfall, temporary construction compounds (TCCs), trenchless crossing sites and the substation zones.	
Methodology – the landfalls, TCC and substation locations have been modelled as area sources, the trenchless crossing locations have been modelled as point source. The plant and programme information has been taken and applied to the different sites using a 3D model (CadnaA noise modelling).	
Criteria – In line with the scoping report and other recent major infrastructure projects, SOAEL 75 $L_{Aeq,T}$ daytime and 55 $L_{Aeq,T}$ nighttime. These levels are also used by the Chartered Institute of Environmental Health. <b>Please can the ETG confirm within responses to the statutory consultation that these criteria are acceptable.</b>	
Results – After application of mitigation no significant vibration effects and one potential residual significant noise effect (R43). This impact could be reduced during design refinement and will be reassessed in the ES. Noise mitigation includes localised barriers and Best Practical Means reductions. All results are subject to refinements in the ES.	
Noise – Construction Traffic Noise	SV
Methodology - As per the Scoping Report the Calculation of Road Traffic Noise (CRTN) has been used in terms of predicting noise levels. Design Manual of Road and Bridges (DMRB) is being used to assess the magnitude of potential impact based on change in road traffic noise. This is a standard approach for major infrastructure projects.	



Results - One potential significant effect is shown on an existing low flow road. CRTN and DMRB is not a suitable methodology for such a low flow road therefo a bespoke assessment criteria will be applied to this road for the ES and update results presents. The assessment criteria will be agreed with the relevant members of the ETG in advance of the ES. There are no other significant residue effects.	d
Noise – Operation Noise	SV
The majority of the infrastructure, including landfall and the onshore export cables will be underground therefore will not make any noise.	
The onshore substations are the key consideration for operational noise. At the PEIR stage the design was not develop enough to model this operational noise. The PEIR does set out the criteria which will be used in the assessment in the ES. These are in line with national noise policy and BS442. Please can the ETG confirm within responses to the statutory consultation that these criteria ar acceptable.	
Noise – Summary	
SV - can the ETG please confirm that the assessment criteria are acceptable, the can be done via email or through the responses to the statutory consultation.	nis
JT – if the assessment criteria are in line with Scoping, they should be acceptabl but will check with JS next week and ask him to confirm.	e
RH – we will share the recording of this meeting with the minutes so JS can catc	h
Air Quality – Study Area/Baseline	SMa
The study area for construction phase dust and fine particulate matter emission covers human receptors within 350m of the onshore development area and ecological receptors within 200m of the onshore development area.	ns
The construction phase non-road mobile machinery (NRMM) study area considered human and ecological receptors within 200m of the onshore development area.	
The road traffic emissions study area considers human and ecological receptor within 200m of the onshore development area and roads that trigger the traffic screening criteria in the IAQM and EPUK guidance (effected road network).	
There is only one Local Air Quality Management Areas within the study areas (H City Council, A63), there are no LAQM within East Riding of Yorkshire Council.	ull



Air quality monitoring data from both councils has been reviewed. This includes data collected from  $NO_2$  diffusion tubes. Neither council collects PM10 or PM2.5 data therefore background pollution concentration data from Defra has been used. Baseline traffic road emissions data has also been reviewed (2019 base year and 2026 future baseline).

DW - For Hull was LAQM or SPD3 used.

SMa – SPD was used as per the request in the Scoping Opinion and subsequent email consultation with the council

DW - Does this include an assessment of the potential key junctions?

SMa – Yes, this is presented in the chapter

JT – On the baseline for PM2.5, since scoping new monitors have been deployed which might be relevant.

JT – The local population in East Riding are very vocal about air quality. If possible, in future validation modelling could this monitoring be mentioned it may head off some questions at the pass. This data will be available at <a href="https://portal.earthsense.co.uk/EastRidingPublic/">https://portal.earthsense.co.uk/EastRidingPublic/</a>

### **Air Quality - Potential Impacts**

`SMa

Construction dust and fine particulate matter – a qualitative assessment in line with IAQM guidance was undertaken. The assessment indicated the risk was high under the worst case scenario without any mitigation. Once IAQM mitigation measures (to be outlined in Construction and Operational Environmental Management Plan) were applied the impact was reduced to not significant.

NRMM emissions at landfall and onshore export cable corridor – Due to the short term and temporary nature of the works at landfall and onshore export cable corridor and with the implementation of control and mitigation measures with impacts would be not significant.

NRMM emissions at the onshore substations – construction activities at the onshore substation would be intermittent and variable throughout. The prevailing West/South West wind would help disperse the emissions away from the nearest human receptors. Given the low background pollutant concentrations and the temporary nature of the construction activities the impacts would be not significant.

Construction road vehicle exhaust emissions on human receptors – the traffic data used for the assessment is discussed in more detail in the Traffic chapter of the PEIR. A number of scenarios were assessed but all resulted in no significant effects to air quality.

DW – Does the assessment included maps of the locations considered SMa – Yes these are provided within the PEIR.



DW - I will go away and discuss the traffic flows with highways colleagues to get their option on the proposed traffic figures. I will do this before submitting the response to PEIR
AG – Has the cumulative impact of other projects been considered  SMa/RH – Due to a lack a detail at the PEIR stage a full cumulative assessment has not yet been completed but a list of projects that will be considered has been. The full cumulative assessment will be included in the ES.
SM - We can provide a list of projects than can be used for the cumulative assessment as there is a lot going on in this part of the country at the moment.
AOB
No further questions or comments.



	DBS	Offshore Wind F	arms Noise and Air Quality Expert Topic Group	
		Document N	umber: PC2340-RHD-ON-ZZ-MI-Z-0042	
Meeting with:		Flood Risk and Hydrology/Geology and Land		
Location:		Online – Microsoft Teams		
Start Tim	ne of Meeting:	10:30	Date of Meeting: 20 <sup>th</sup> July 2023	
Attendees		Initials	Role & Organisation	
		LT	RWE – Onshore Consents Manager	
		RT	RWE – Onshore Consents Manager	
		JF	RHDHV – Onshore Support	
		CM	RHDHV – Technical Lead	
		KD	RHDHV – Geology and Land Quality	
		HW	RHDHV – Principal Flood Risk Consultant	
		SF	RHDHV- Flood Risk Consultant	
		JC	Beverley Internal Drainage Board	
		MK	Flood Cost Risk Management Team – East Riding Of Yorks	hire Council
		DP	Environment Agency – Partnership and Strategic Overvio	ew Advisor
_		ES	Environment Agency- Groundwater and Contaminated Lanc	d Team Leade
_		MW	Env Agency – Planning Specialist Sustainable Place	Team
		VP	RHDHV – Onshore Support	
	ng Agenda/ ective(s):		n update on the PEIR Flood Risk assessment and, n update on the PEIR Geology assessment	
Item			Description/ Discussion	Presenter
	Welcome and Ir	ntroduction		JF
			ves and their role in relation to the projects. An overview of meeting was provided.	
	<b>Project Update</b>			LT
		export cables, lar	ndfall given by <b>LT</b> . Recapped the wind turbines, the array ndfall, onshore export cables and onshore substation at	
	•		ind farm projects to date was provided, including details on and a summary of the likely infrastructure requirements.	



The Scoping Opinion was received in September 2022. Introductory consultation occurred in September and October 2022. Future programme dates were outlined, as presented in slide 9.

Statutory Consultation running 6<sup>th</sup> June to 17<sup>th</sup> July.

Showed timeline of DCO application for Feb 2024, Examination 2024, consent potentially May 2025, construction 2026+.

#### **Surface Water IDB Drains Geomorphology**

Flood risk and Hydrology:

The baseline for flood risk and hydrology chapter was presented. This included surface water drainage, geomorphology, water quality, groundwater features and flood risk.

Action - RHDHV and stakeholders to agree naming convention for the main river, IDB maintained drains and all other ordinary water courses.

**JC** queried if IDB Drains and ordinary water drains have been considered, SF confirmed that have been considered for impacts of the wider catchment, although there are many ditches and drains without names on OS maps.

#### **Assessment:**

Impacts during Construction and Operational stages were presented with no direct disturbance once operational.

#### Mitigation:

Mitigation included in PEIR includes a commitment to use trenchless crossing techniques for all Main Rivers. In addition, best practice measures which will be implemented were outlined.

### **Summary of Impacts:**

Before mitigation a high magnitude impact from direct disturbance was reported for the Beverley and Barmston Drain as it is crossed twice. Following mitigation all impacts were assessed as Negligible to Minor Adverse.

#### **Questions and Answers:**

JC – recommended the use of HDD for all river crossings not just the Main Rivers but all the watercourses along the cable route. As mentioned by the Board to avoid problems like in the past with slips and works affecting watercourses, HDD will also enable continued conveyance of flows particularly in the Winter.

JF – confirmed that JC's PEIR response was noted and currently at the collating responses stage which will be forward to the engineering team as current meeting attendees unable to make that call.

**LT** – suggested that it would be helpful to go through the list of watercourses along the cable route etc and obtain some steer on the particularly sensitive ones keeping in mind engineering flexibility.

SF



<b>HW</b> – asked if there were any other watercourses within the Internal Drainage District (besides the maintained ones) that were cause for concern, and maybe it was worth going into these in a bit more detail and engage in dialogue for specific locations as currently high level with cable corridor.	
Action JC – RWE/RHDHV to issue a crossing schedule to the ETG once available and arrange another meeting to discuss.	
JC – asked if there was a plan for the land drains which might be disturbed in the middle of fields as works proceeds through them.	
RT – Specialist contractor has been brought on board who will be mapping existing land drainage. The current assumption is this will be restored following construction with the landowner's input. This work is ongoing alongside (but separate to) the Environmental Statement.	
LT – confirmed a two-stage desk based and intrusive survey works currently in process.	
JC – asked if it LDC? And if so they have worked together a lot in the past and therefore has high confidence in their outputs.	
LT + RT – confirmed and noted it was good to have the confidence confirmed in contractor.	
Geology and Land Quality	KD
A summary was the PEIR Geology and Land Quality chapter was presented. This included an overview of the study areas used, the sensitive receptors identified and the assessment of impacts.	
KD confirmed the next steps include further ground investigation targeting areas of possible ground contamination, reviewing private groundwater abstraction data and a full cumulative assessment.	
AOB/Summary and Next Steps	JF
JC – Asked if the crossing will go through the cable route that has been put in recently in Routh? (Dogger Bank A & B)	
LT – possible crossing, by going underneath Deeper drill?	
<b>HW</b> – Question for MK– regarding whether the current LLFA guidance on SuDS and drainage design on their website is up to date or whether there are any plans for new releases? The current document is relatively old (2016-17) and the team wanted to confirm nothing missed out in drainage and drainage design.	
<b>MK</b> - no imminent plan to update but if they are updated in the future the project would be informed via consultation and discussions. Open to discuss any concerns from current documents.	
<b>HW</b> – Clarified that the team wanted to check if any such work was going on in the background that might come out part way through examination or just before DCO submission.	
MK – Confirmed that the likelihood of a new update being published or the LLFA imposing	



JC – asked if two cable routes were being proposed? (2 cable trenches)

LT – confirmed that in the two projects with multiple trenches – Two scenarios, a HVAC+HVDC scenario with 4x AC trenches and 1x DC trench or a HVDC+HVDC scenario with 2x HVDC trenches. Exact details will be provided in the ES but there will be multiple trenches all running parallel to each other.

JC – asked if the temporary construction corridor was 80m?

**LT** – confirmed that temporary construction corridor will be 100m, expanded out to 160m for trenchless crossings . and further explained about the permanent cable alignments, topsoil storage and technical information.

JC – asked the depth of the cables

**LT** – explained with regards to subject to ground survey conditions etc. but possibly around 1.2-1.6m mark.

JC – asked if ducted initially and cables pulled through later

LT - Couple of different construction scenarios outlined in the PEIR and will be confirmed at ES

#### Wrap up

**JF** - confirmed receipt of responses from the Statutory Consultation from EA and IDB. All responses currently being reviewed. In case of any queries get in touch via email. Minutes and meeting recording will be made available in due course.

**Next meeting in September** - final design to be taken to DCO application in September, to bottom out any extra inclusions in the assessment and respond to any questions. Followed by another consultation meeting prior to submission of DCO giving many opportunities to feed in and discuss results of surveys etc.

**Further meeting in December -** To bottom out any issues pre the submission of the DCO application.



Traffic and Transport September 2023 ETG – Hull City Council and National Highways						
Document Number: C2340-RHD-ON-ZZ-MI-Z-0043						
Meeting with:	Hull City Council and National Highways					
Location:		T	eams			
Start Time of Meeting:	14:00	Date of Meeting:	06/09/2023			
Attendees	Initials	Rol	le & Organisation			
	ST	Transport Planner	at Royal HaskoningDHV (RHDHV)			
	AR	Transp	ort Planner at RHDHV			
	PR	Highways Manager for development and control at Hull City Council (HCC)				
	SM	Town Planner at HCC				
	LT	Onshore Consents Manager at RWE				
	RG	Natio	onal Highways (NH)			
	JF		JSJV			
	RE	JSJV				
Apologies	Initials	Role & Organisation				
Meeting Agenda/ Objective(s):	The objective of the meeting is to provide highways stakeholders with and update on the Projects and discuss the PEIR feedback and proposed approach to the traffic and transport assessment.					

Item	Description/ Discussion	Presenter
1.	Welcome and Introduction  ST provides a brief introduction and all members introduce themselves.  RG confirmed that she will be leading for NH going forward, taking over from  ST clarifies that a separate meeting will be held with ERYC noting that the Projects are within their area.	ST
2.	Project Update  LT provides an update on the Projects, noting DCO application is intended for March 2024.	LT
3.	Study Area ST notes NH have raised comments in their PEIR review about the extents of the study area. ST clarifies that the study area was previously agreed with NH. RE agrees that the extent of the study area is appropriate as traffic will either stay on the main A63 or disperse at various junctions. Content for	ST



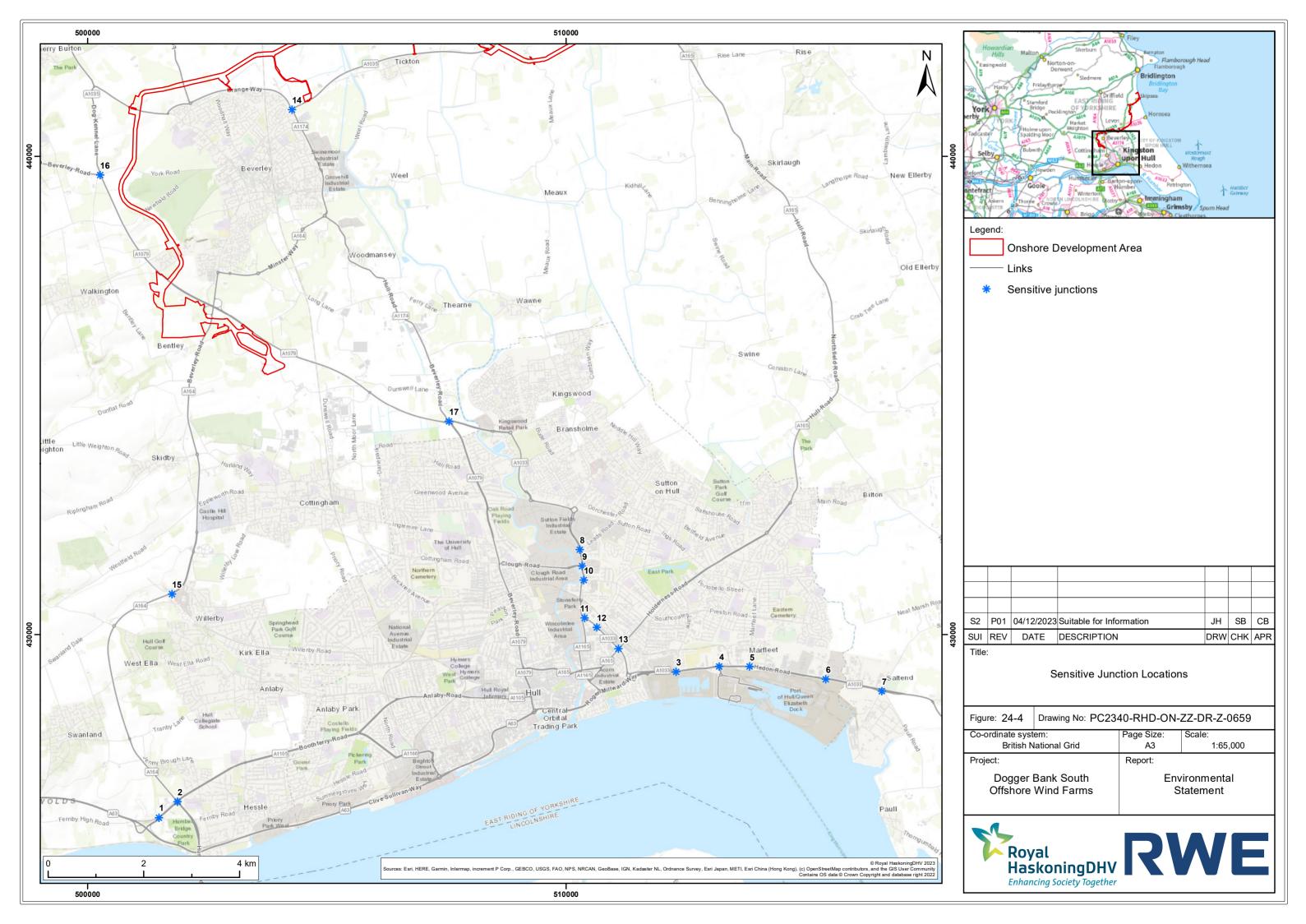
gooign mont for a got to be managed through a Construction traffic	
assignment forecasts to be managed through a Construction traffic Management Plan.	
ST checks if HCC are still content with the extent of the study area. PR confirms HCC agree with the extent of the study area presented.	
4. Driver Delay	ST
ST notes that both NH and HCC have raised comments in the PEIR response in regard to the requirement for capacity assessment. ST confirmed that no capacity assessment is presented in the PEIR as both NH and HCC had agreed that they would advise upon locations where capacity assessments are required post submission of the PEIR traffic demand.	
ST highlights that the Projects have made significant commitments in regard to 75% of employee traffic arriving before 07:30 and departing after 18:00, to avoid network peak hours. ST presents details of the traffic demand that would occur in the peak hours (from the PEIR) and asks if NH or HCC consider that the volume of flows would require capacity assessment. ST also notes that work is ongoing to try and refine and reduce the traffic demand for the ES.	
RE confirms that if flows are less than 30 trips per hour on any junction arm then capacity assessment would not be required. Where they are higher than this threshold capacity assessment will be required.	
ST asks if HCC agree this threshold is appropriate for the local road network? PR confirms this threshold is appropriate.	
ST asks NH and HCC where capacity assessment may be required if the agreed thresholds are exceeded? A list of junctions is provided by PR and RE (see <b>Figure 1</b> ) of these minutes.	
Action 1: RE and PR to confirm locations are correct.	
All: discussions around whether representative surveys can be undertaken to allow modelling of these junctions. PR and RE note significant road works due to Castle Street and for this reason representative surveys are not considered possible. ST also notes that the flows presented in the ETG are representative of a worst case where all HGV traffic is assumed to travel south towards Hull and the A63 and when a contractor is appointed this assumption could potentially be refined (reducing traffic flows).	
PR and RE recommend that modelling is deferred to post determination as part of the CTMP. All: agreed that the CTMP will include a commitment to model any of the junctions in <b>Figure 1</b> if traffic flows in the network peak hours exceed 30 movements on any arm. If flows are below these thresholds modelling will not be required.	
5. Data Collection	ST



Item	Description/ Discussion	Presenter
	ST Noted that NH had not commented on the appropriateness of the data collection. ST explained that daily traffic flows for the SRN and roads in HCC area are drawn from DfT data. ST asked if this is acceptable and what year should be used noting Covid-19 and also Castle Street.	
	PR and RE agreed that 2018/2019 baseline data is appropriate for daily traffic flows.	
6.	Road Safety	ST
	ST noted that NH had not provided comment upon the collision analysis presented at PEIR and asked if NH were content with the methodology and assessment presented.	
	RE confirmed that NH are generally happy with the assessment and it is about managing traffic demand in the peak hours where there are high collision rates or collision clusters.	
	ST identified that the PEIR identified a significant road safety baseline along Holderness Road and asked if HCC had any planned improvement works? PR dived he was not aware of any issues but that ST should speak to and involve PR in these conversations.	
	Action 2: ST to arrange a meeting with PR to discuss the Holderness Road safety improvements.	
7.	Traffic Demand	ST
	ST noted that NH had raised comments on the appropriateness of the use of first principles data. ST explained that this approach was discussed and agreed with NH previously. ST also noted that the assessment assumes a worst case of all HGV traffic travelling south towards Hull, the A63 and that a worst case of one employee per vehicle is adopted.	
	PR confirmed that NH were happy with what is presented and that a worst case has been assessed. PR also noted that he was confident that NH will be able to control numbers through the CTMP.	
8.	Employee Distribution	ST
	ST noted that NH had raised comments on the employee distribution and had requested copies of the excel files to allow them to check. RG confirmed that ST can send RE copies of the excel files direct for checking.	
	Action 3: ST to issue excel files to RE and JF. RE and JF to provide any comments back to ST.	
9.	Abnormal Loads	ST
	ST noted that NH had raised comments on the need to undertake an abnormal load assessment. ST confirmed that an abnormal load assessment associated with the delivery of the Projects transformers was presented within the PEIR and had been agreed in principle by National Highways abnormal load team. RE confirmed that NH had no further comments to add.	
	ST noted that in addition to the special order AILs (for the Projects transformers), non-special order abnormal loads may be required associated with the delivery of items of plant, cable drums etc? ST asked if NH and HCC were content that these could be managed post consent	



Item	Description/ Discussion	Presenter
	through the established ESDAL process. PR and RE confirmed this approach was acceptable.	
10.	AOB	ST
	ST thanks everyone for their time, committed to issuing minutes and actions and asked if there was any other business.	
	All: No other business raised.	
	ST advised that the Projects will try and schedule a further ETG before the submission of the DCO documents.	
	Action 4: ST to issue meeting minutes and copies of the slide pack.	





Traffic and Transport September 09 ETG - ERYC					
Document Number: PC2340-RHD-ON-ZZ-MI-Z-0044					
Meeting with:		East Riding of	Yorkshire Council		
Location:		T	eams		
Start Time of Meeting:	14:00	Date of Meeting:	08/09/2023		
Attendees	Initials	Rol	le & Organisation		
	ST	Transport Planner at Royal HaskoningDHV (RHDHV)			
	OC	Onshore Consents Lead at RHDHV Onshore Consents Lead at RWE Transport Development Manager at ERYC			
	AB				
	AF				
	IS	Service Manager for Area 3 and maintenance at ERYC			
	TW	Area	5 Manager at ERYC		
Apologies	Initials	Rol	le & Organisation		
	AA	ERYC			
Meeting Agenda/ Objective(s):	The objective of the meeting is to provide ERYC with an update on the Projects and seek any feedback from ERYC on the PEIR and discuss the proposed approach to the traffic and transport assessment.				

Item	Description/ Discussion	Presenter
1.	Welcome and Introduction	ST
	ST provides a brief introduction and all members introduce themselves.	
	ST clarifies that a separate meeting has been held with Hull City Council and National Highways noting that the Projects are not within their area.	
2.	Project Update	AB
	AB provides an update on the Projects.	
3.	Access Updates	ST
	ST advised that following the previous ETG meeting there had been a number of minor refinements to previously agreed access locations and ERYCs views were sought. ST shared these amendments and sought comments from ERYC.	
	Crossing 3Ac, 6A and 8A	
	ST noted that it is proposed to relocate three crossings slightly. ST shared plans of these crossings and advised that these are minor changes and the geometry and visibility splays would remain unaltered. TW advised that ERYC have no concerns with the amended crossing designs.	
	Access 5A	



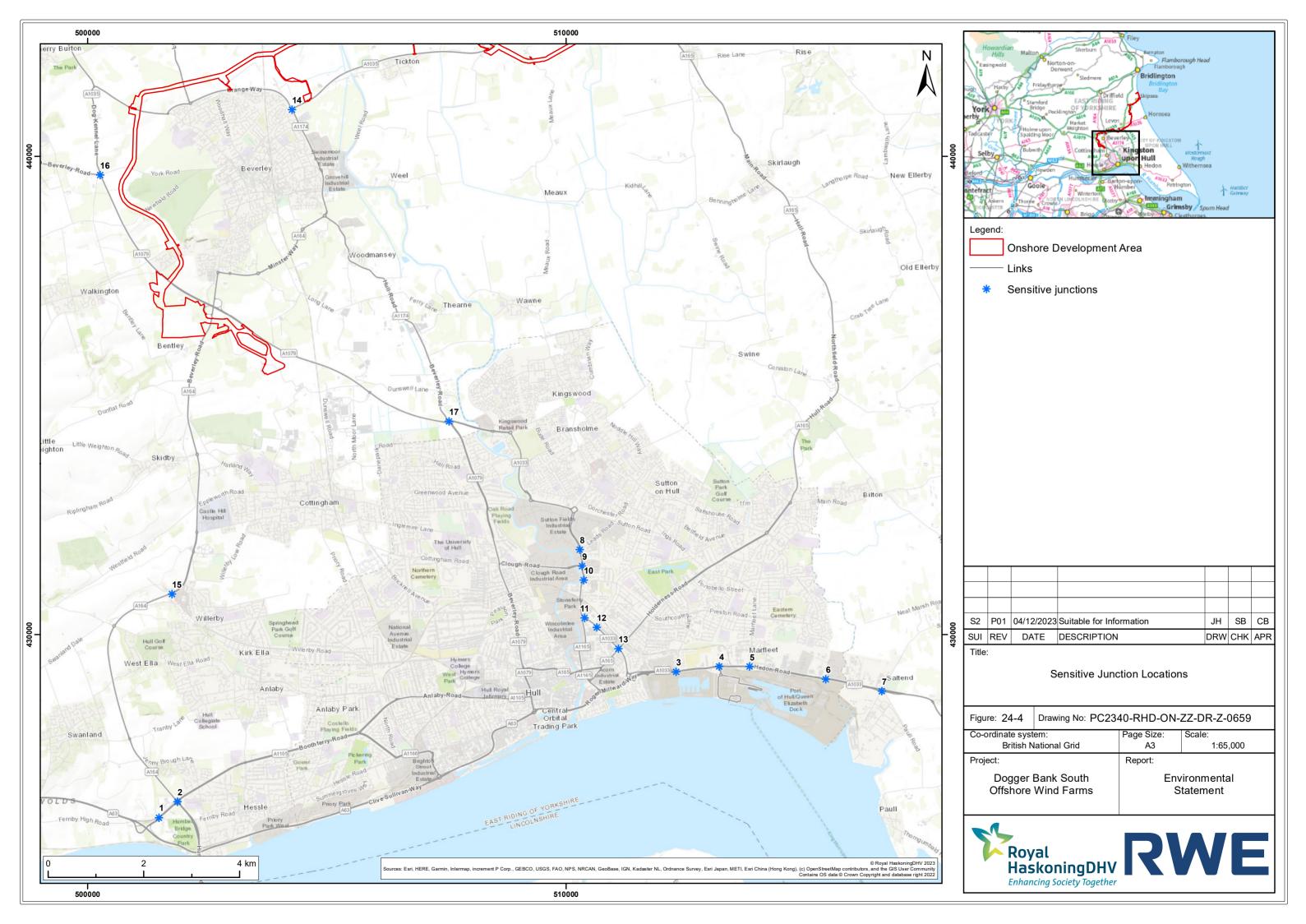
Item	Description/ Discussion	Presenter
	ST noted that following ERYCs feedback, it is proposed to remove the access from the north of the A1035. TW agreed with the proposed amendments.	
	Access 13B	
	ST noted that it is proposed to relocate access 13B and shared a plan. ST advised that these are minor changes and the geometry and visibility splays would remain unaltered. IS advised that ERYC have no concerns with the amended access designs.	
	Crossing of Park Lane	
	ST noted that it is proposed to provide two crossings of Park Lane and shared a plan. It was noted that Park Lane is not public highway but is a bridleway. IS advised that ERYC have no concerns with the proposed crossings of Park Lane but that Simon Parker at ERYC public rights of way team should comment on the suitability of crossings of rights of way.	
	Action 1: ST to discuss with rights of way team how crossings of PRoW are to be managed.	
	Access 18 from the Jocks Lodge	
	ST noted that a potential additional access may be required from the realigned Jocks Lodge. IS advised that ERYC think this is a temporary access and may be removed. Recommend discussing with the Jocks Lodge team to understand if the access is temporary and if so if it can be retained for the Projects.	
	Action 2: ST to speak to Jocks Lodge team about this access.	
4.	Study Area	ST
	ST notes the study area was previously agreed with ERYC and wishes to confirm that ERYC are still in agreement with the extents of the study area. AF confirms ERYC are in agreement with the extents of the study area.	
5.	Driver Delay	ST
	ST outlines that no capacity assessment is presented in the PEIR as ERYC had agreed that they would advise upon locations where capacity assessments are required post submission of the PEIR traffic demand.	
	ST highlights that the Projects have made significant commitments in regard to 75% of employee traffic arriving before 07:30 and departing after 18:00, to avoid network peak hours. ST presents details of the traffic demand that would occur in the peak hours (from the PEIR) and asks if ERYC consider that the volume of flows would require capacity assessment. ST also notes that work is ongoing to try and refine and reduce the traffic demand for the ES.	
	AF provides details of four junctions that should be assessed (see <b>Figure 1</b> ) of these minutes.	
	ST asks if ERYC are in agreement that traffic surveys can be undertaken prior to October half term? AF agrees this is acceptable. AF however advises that work is imminent to upgrade Papas Roundabout and as	



Item	Description/ Discussion	Presenter
	such it will not be possible to survey this junction. AF advises seeking modelling data from Andrew Humphrey at ERYC.	
	Action 3: ST to speak to Andrew Humphrey to acquire traffic models for Papas Roundabout.	
6.	Data Collection	ST
	ST outlined how baseline data had been collected and asked if ERYC had any comments. AF confirmed that ERYC were in agreement with how baseline data had been collected.	
7.	Road Safety	ST
	ST outlined the road safety assessment methodology presented at PEIR and asked if ERYC were content with the methodology presented. AF confirmed that ERYC agreed with the methodology.  ST noted three areas where baseline road safety issues had been	
	identified that could potentially be exacerbated by the Projects traffic (Link 32, 38 and 55).	
	Link 32 & 38: ST noted a pattern of rear end shunt type collisions but that improvements were planned at Jocks Lodge and Papas roundabout that should improve this situation. AF agreed that the improvements would help.	
	ST noted a pattern of collisions along link 55 and asked if ERYC were aware of any changes, improvements along this link. ERYC identified improvements at the junction with Meaux Lane which had provided a right turn lane and that these had helped with existing issues.	
8.	Severance and Amenity	ST
	ST outlined those links where potentially significant amenity and severance effects had been identified in the PEIR. ST outlined that the proposed approach to mitigating effects would be to reduce peak traffic demand to acceptable levels and these would be capped/controlled through the CTMP. ST asked if ERYC agreed with this approach?  AF confirmed that this approach would be acceptable. AF also asked that	
	school times be avoided past Skipsea primary school. ST agreed with this.	
9.	Traffic Demand	ST
	ST outlined the approach to deriving and assigning employee and HGV traffic to the highway network and asked if ERYC had any comments. AF confirmed that ERYC were in agreement with the approach to deriving and assigning construction traffic.	
10.	Abnormal Loads	ST
	ST confirmed that an abnormal load assessment associated with the delivery of the Projects transformers was presented within the PEIR and had been agreed in principle by National Highways abnormal load team.  if ERYC had any concerns. AF outlines that and rom ERYC should be approached for comment.	
	Action 3: ST to check if Wynns have approached rom ERYC.	



Item	Description/ Discussion	Presenter
	ST noted that in addition to the special order AILs (for the Projects transformers), non-special order abnormal loads may be required associated with the delivery of items of plant, cable drums etc. ST asked if ERYC were content that these could be managed post consent through the established ESDAL process.	
	AF confirmed this approach was acceptable.	
11.	AOB	ST
	ST thanks everyone for their time, committed to issuing minutes and actions and asked if there was any other business.	
	All: No other business raised.	
	ST advised that the Projects will try and schedule a further ETG before the submission of the DCO documents.	
	Action 4: ST to issue meeting minutes and copies of the slide pack.	





Marine	Marine Physical Processes Expert Topic Group 11/09/23					
	<b>Document Number:</b> 004931577-04					
Meeting with:	Marine Physical Processes Expert Topic Group					
Location:		Online				
Start Time of Meeting:	14:00	Date of Meeting:	11 September 2	023		
Attendees	Initials	R	ole & Organisation			
	DB	Offshore Cons	sents Manager, RWE Renewa	bles		
	HP	Consents	Manager, RWE Renewables			
	AC	Offshore Cons	sents Manager, RWE Renewa	bles		
	PB	HRA M	lanager, RWE Renewables			
	CM	Principal Co	nsultant, Royal HaskoningDl	HV		
	СР	Principal Co	nsultant, Royal HaskoningDl	HV		
	CC	Marine Env	ironmental Consultant, RHDI	HV		
	SB	Graduate Env	vironmental Consultant, RHD	HV		
	LA	Marine I	Licensing Case Officer, MMO			
	IB		Cefas			
	EJ	Marine Se	nior Advisor. Natural Englan	d		
	PC	Marine Lead Advisor, Natural England				
	MK	K Principal Advisor, Natural England				
RPV Marin			ead Advisor, Natural England			
	YF	Lead advisor on	Physical Processes, Natural F	England		
	ЕН		Natural England			
	LB	Geomorpho	logy Lead, Environment Ager	ncy		
Apologies	Initials	R	ole & Organisation			
	DBr	Principal Consultant, Royal HaskoningDHV		HV		
	NP	Offshore Industry Adviser, JNCC				
	MW	Environment Agency				
Meeting Agenda/ Objective(s):	<ul> <li>1. Approach</li> <li>2. Progress</li> <li>3. Initial resolution</li> <li>4. Ongoing</li> <li>4. PEIR responses</li> <li>5. AOB</li> <li>6. Summary and Ne</li> </ul>	Processes Numerical Modellin h sults modelling	ng			
Item	Desc	ription/ Discussion		Presenter		
Consultation/Key No Project detail updates		minary Environmental Ir	nformation Report (PEIR).	DB		



- The Projects themselves were awarded to RWE as preferred bidder through The Crown Estates Round 4 auction process.
- The onshore and offshore electrical infrastructure will be co-located where possible.
- Expected to connect to a new National Grid substation at Creyke Beck (through Holistic Network Design (HND) Process) providing benefit of integrated connections to Scotwind and other UK offshore wind projects.

### **Project Design Refinements:**

- DB gave an overview of refinements to the Projects following PEIR responses and site-specific survey data (slides 6 and 7)
- The array areas have been reduced for each Project:
- Buffer area between the two array areas kept for inter-project cabling (pink area (see slide 7).
- Note in prep to be released next week that outlines the changes in the offshore export cable corridors (removal of northern leg).

#### **Questions:**

- **EJ** Will reducing the array areas impact the building parameters concerning the number of turbines installed?
- **DB** Wider changes are being made to the envelope. Reductions themselves aren't driving the turbine sizes or numbers directly, but changes within the limits established for PEIR are expected for ES. Potential design changes to the design envelope bring the area per array from 500km² at PEIR to approximately 350km² for the ES.
- **EJ** It would be helpful to know the distance of the Electrical Switching Platform area of search on the export cable corridor from nearest land point.
- **DB** The closest land point (Flamborough Head) is around 38km, and around 50km from the export cable landfall at Skipsea. Reported in PEIR and not moved in distance.

Post-meeting note – Confirmed this search area is approximately 38km from the nearest point onshore.

**AC** – Distance has not changed. The only change in the cable route platform area of search is the removal of the branch that corresponds with the cable options which have been removed from the process.

Post-meeting note – Further information may be seen in the Dogger Bank South Offshore Export Cable Corridor and Landfall Site Selection Report (EcoDoc Ref: 004916710-02) issued to ETG members for review on the 12<sup>th</sup> September.

#### **Changes to Red Line:**

At export cable landfall, the southern landfall option (land fall 9) is removed from the envelope for ES.

- Landfall 9 is being removed from the envelope, detailed in relation to cable route changes.
- As part of that removal, we have been able to exclude any interface of permanent cable corridor with the Holderness MCZ (hatched green area in slide 8 figure).
- Burial cable corridor separation of around 100m in distance from MCZ boundary. This is relatively close, but we have been able to avoid permanent overlap with the MCZ.



Post-meeting note – Further information may be seen in the Dogger Bank South Offshore Export Cable Corridor and Landfall Site Selection Report (EcoDoc Ref: 004916710-02) issued to ETG members for review on the 12<sup>th</sup> September.

#### **Status:**

- PEIR consultation feedback received and reviewed over the past three months.
- ES Chapter drafting is underway and will continue over next few months.
- Site specific modelling commenced in line with feedback from PEIR.
- Further ETG will take place prior to submission, looking more closely at the design envelope, modelling outputs and any further information regarding DBS.

#### **Programme:**

- Next on the horizon are the DCO applications and then examinations (March 2024).
- Construction and operation activities commencing beyond 2026.

### Progress so far

- Recapped the Projects' approach and PEIR. (Due to last ETG meeting being in January 2023).
- Comments on the concerns regarding the ETG and technical feedback.
- Initial approach: Using numerical modelling (2012) for Dogger Bank A & B and Sofia. Results were used due to it being believed that the WCS was much more conservative for that of DBS.
  - Results were presented at the ETG. Feedback raised concerns about the applicability of the model.
  - More evidence was requested to make confident comparisons to the empirical data of the previous area modelled e.g., hydrodynamic regime, wave regime, seabed sediment data and morphology.

Feedback from technical note:

- -WCS was not considered realistic. Data based on turbines at 700m spacing, which will not be relevant to DBS. More site-specific data is needed to make comparisons which was not available during the PEIR stage. This will be done during ES to support impact assessment.
- Approach (ongoing): Wave, hydrodynamic and sediment dispersion modelling will be undertaken – DBS East and West.
- Based on two scenarios (1 baseline/no offshore wind farms present, 2 baseline, plus DBS East and West).
- Plan to use outputs of the modelling to inform or support the characterisations of the baseline environment.
- Will also assess the impacts of construction, plumes and sediment concentrations, the deposition and how they will change sea-bed levels.
- Construction drill pile foundations and cable installation impacts suspended sediment.
- Operational wave and hydrodynamic modelling will be done to help understand changes in wave and tidal regime.

#### **Summary of progress:**

- Standard Hydrodynamic and Spectro Wave.
  - Within the model, the project specific bathymetry was made to  $1\mbox{m}$  resolution

CM



for the corridor and array areas (a larger area now that the arrays are being refined).

- -Bathymetry was supplemented to EMODnet bathymetry coarser resolution 115m spatial resolution in the wider North Sea.
- A netted approach within the array areas and cable corridor 200m spacing in the model- data modelled at 200m cell. As we extend, wider in the North Sea from 1000-2000m.
- Models are calibrated with project specific data.
  - -Two wave buoys deployed (during 2022 and 2023), one each in DBS East and DBS West.
  - -Data is being processed, calibrated and incorporated with project specific data.

#### **Sensitivity test**

- Used two different layouts (Option 1 and 2 figures in slide):
  - -Option  ${\bf 1}$  same number of turbines with equal spacing throughout the array area.
  - -Option 2 confined turbine (all in the corner) configuration.
  - Sensitivity test was undertaken to determine which is WCS for Wave and Hydrodynamic (for each option).
- Wave test findings identified that the worst case was for Option 2, confined configuration equals larger increase in speed and wave shadow effect. Modelling showed a 0.004 meter per second change.
- Return periods were looked at for different waves from different directions, to run scenarios:
  - one in 1 year event
  - one in 50-year event (as was done for previous modelling mentioned in feedback).

#### **Initial Results:**

- Extreme return periods show not much difference in wave height. For example, between 1 in 50 vs 1 in 100-year event = 80cm difference.
- Wave Buoy data- one from DBS East and DBS West (ERA5 40 years worth of data is being used).
- Modelling two wave directions:
  - 1. Run broadly Northly direction DBS West and East wave buoys.
  - 2. Run for East, 75-105 degrees.
- ERA East wave rose and project specific ones, a slightly higher proportion of higher waves show significant wave height.
- Wanted to capture a scenario from worst case that if you have a large wave, it comes from the east, it's more likely to interact with the coast (from an east to west direction).

### **Modelling Results:**

- 1 in 1 year event for Option 2 (tightly spaced option) max change in significant change wave height is 10cm (waves that approach from the East, 9cm from the North, and 1cm from waves within 90km (does not interact with the coast).
- 1 in 50 year 10cm change in wave height from waves coming from the East, 7cm from the North, and 1cm does not extend that far compared to the 1 in 1 year event (again no interaction with the coast).
- Extremes are not going to impact the environment significantly wave regime.
   A higher wave means that the water depth has increased, so the interaction with the seabed is lower.

Ongoing modelling (hydrodynamic) for Option 2 (WCS in terms of layout)



- Once structures from OWF are added into model, baseline modelling scenario are run for changes in hydrodynamic changes due to the presence of those structures.
- Sediment dispersion modelling can then take place.
- Drill and cable installation impacts can also be modelled (sound level etc.)
- Export cable corridor platform area of search (Pink box area in cable corridor) –
  potential for an Electrical Switching Platform to be installed and modelled as a
  separate scenario.

#### **Ouestions:**

LB: What kind of considerations have been given to climate change for the modelling?

**CM**: Wave model hasn't been done for future levels, just installation. There is the assumption that water levels increasing mean wave levels should be lower due to depths getting larger. Water depth at DBS is already deep so no future increase in sea levels will manifest significantly.

**EB**: Understand that the model is being run for no windfarms and then both windfarms together. Wanted to know if the modelling was being run for just one project with each project being built individually?

**CM**: Wave modelling is being done for both projects (being built) as both need to be installed for the purpose of the worst-case modelling. With sediment dispersion modelling, we plan to run all foundations being installed at same time – not realistic, but the provisional results are not showing overlapping plumes due to the distance between foundations and the offshore wind farms themselves, so this represents a worst case. The potential for overlapping effects is minimal due to no overlapping plumes.

**EB**: In relation to Option 1 and 2, I agree that Option 2 looks worse. Is this a layout option that the project is considering? Have never seen a windfarm look like Option 2. So, is Option 2 realistic?

**DB**: Option 2 takes out minimal distance between turbines and is the densest possible layout. It is possible, but unlikely. The scenarios presented represent two ends of the spacing spectrum.

**IB**: You mentioned calibration of the model, do we expect to see validation of the expected data with the models as it is important?

CM: It is currently in our wave technical note and will be included in the ES.

#### **Key themes of the PEIR comments:**

Comments came back in relation to data at the time of PEIR.

- We have all geophysical data.
- Sub-bottom profile data.
- Environmental samples have been collected (sea-bed grab).
- All above are incorporated into the modelling.
- Geotechnical surveys data comes through in waves, we are expecting geotechnical data from the cable route in the autumn. All will be included in the ES.

#### Numerical modelling:

- Number of comments will be addressed.
- Number of themes from stakeholders coastal monitoring data ongoing collection.
- Information from the NCERM to include assessment of future change.
- Coastal erosion assessment including the IPPC sea level projections etc. to be updated.



• All will be updated at ES.

#### Minor comments:

- Skipsea and Withow Gap SSSI was not included, but will be included at ES.
- Ocean stratification comments to assess changes concerning turbine presence
   sediment mixing in the water column.
- Changes in in primary productivity currently looking into where this can be assessed in the chapters e.g., biological elements. Any clarification or suggestions will be welcome.
- Cefas comments on changes in temperature or cold water plumes forming around foundations due to turbulence. Formal clarification on any queries from Jon Rees. Charlie has emailed, a follow up may be needed to chase comments from him.

#### Action 1 - Charlie to follow up on this query with Jon Rees.

#### **Cumulative effects:**

- A high-level full assessment will be done for ES.
- Understanding of the zone of influence has been gained through tidal influences and their extent.
- We will look at outputs of the modelling and if there is any overlap in activities.
- Looking at outputs of modelling on dispersal of plumes.
- Will look at what activities may potentially be overlapped or influenced.

#### Project phases

- Comments request we consider the effect of cable repair between construction and O&M. Natural England suggested potentially adding an additional phase between the two for this. The construction and O&M phases would be clearly defined as legal terms within the DCO, so any potential cable repair would happen within one of these phases.
- Comment on adding a cable and scour protection at decommissioning will be reviewed at the exact time of decommissioning, considering the life span of the project itself and the sector of offshore wind.

#### **Questions**

**EB**: In terms of commitment to the scour protection removal and reviewing the decommission guidance at the time of decommissioning, does this mean that you are assessing the scour protection as permanent in WCS?

**CM**: With decommissioning at the moment, we are considering the same level of impact as construction (high level) in terms of disturbance of the sea bed, so from a marine physical process perspective the level of impact is a like for like, but what you are raising is a good point. It can be covered by benthic.

**CC**: Will review and get back to you with your comment.

Post-meeting note – Decommissioning and scour protection will be examined further in the final Benthic and Intertidal Ecology ES chapter.

#### **Summary and next steps**

- Chapter drafting has commenced.
- Continuing with PEIR responses and site-specific modelling
- Later this year consultation for ES draft for marine physical processes.



	<ul> <li>Chapter finalisation January-March 2024.</li> <li>Questions</li> <li>EB: It looks like you are not intending to fit in a full review of the updated chapters before submission. Is that correct?</li> <li>CC: Correct at time of this meeting.</li> <li>EB: I would recommend that you start to look at availabilities for meeting (for November). Also, if you could provide modelling outputs to us in advance (at least 2 weeks) it will help us get the most out of the meetings.</li> <li>CC: Looking to get invites out as soon as we can.</li> </ul>	
Action ID	Action	Owner
1	Follow up with regarding Cefas comment.	CC

**Appended Documents – presentation slides** 



Marine Mammals Expert Topic Group Meeting				
<b>Document Number:</b> 004931576-03				
Meeting with:	Marine Mammals ETG			
Location:	Online			
Start Time of Meeting:	14:00	Date of Meeting:	14 September 20	023
Attendees	Initials	Role & Organisation		
	AC	Offshore Consents Manager, RWE Renewables Offshore Consents Manager, RWE Renewables HRA Manager, RWE Renewables Consents Manager, RWE Renewables Marine Mammals Consultant, RHDHV Senior Marine Mammal Specialist, RHDHV Marine Environmental Consultant, RHDHV		
	DB			
	PB			
	HP			
	SB			
	GS			
	CC			
	SB	Graduate Environmental Consultant, RHDHV		
	LA	Marine Licensing Case Officer, MMO		
	ZT	Marine Licensing Case Manager, MMO		
	EJ	Marine Senior Advisor, Natural England		
	PC	Marine Lead Advisor, Natural England  Marine Lead Advisor, Natural England  Senior Marine Specialist, Natural England  Natural England  Principal Advisor, Natural England		
	RPV			
	СО			
	ОН			
	MK			
Apologies	Initials	Role & Organisation		
	AS	) Wildlife Trusts		
	TD			
	CP			
Cefas Underwater Noise Team				
<ul> <li>Project update</li> <li>Site selection</li> <li>Marine Mammals: PEIR comments and responses</li> <li>Updated underwater noise modelling</li> <li>Noise mitigation measures:</li> <li>Noise monitoring</li> <li>Cumulative Effects Assessment: CEA</li> <li>Summary and next steps</li> </ul>				
Item Description/ Discussion Pro				Presenter



<u>Project update</u>

- The Projects themselves were awarded to RWE as preferred bidder through The Crown Estates Round 4 auction process.
- The onshore and offshore electrical infrastructure will be co-located where possible.
- Expected to connect to a new National Grid substation at Creyke Beck (through HND Process) providing benefit of integrated connections to Scotwind and other UK offshore wind projects.

#### **Site Selection**

- PEIR response consultation closed middle of July, now reviewing.
- Responses coupled with more detailed analysis of site-specific survey data have allowed us to refine outer array areas. Shown in figure in slide 8 (purple and mint green).
- Buffer area is still present. Pale orange to allow inter-platform cable routing. Buried cables wherever possible.
- Refined offshore export cable routes currently consulting on site selection for offshore cable corridor. Report issued a few days ago on the rationale for the refinement.
- Presenting the refined boundaries which we are looking to take forward for the ES.

#### **Questions**

**EB:** If there is a possibility that one project gets sold in the future or isn't developed, what happens to the joining interconnecting cables? Dogger bank A B and Sofia went through it in a similar way, but they aren't interlinked in the arrays so curious how this would be managed?

**AC**: This would be subject to separate commercial discussions and agreement between the two parties. Hard to say at this point as it's a hypothetical situation, but I would imagine there would be an agreement in place to manage that.

**DB**: If only one project was built out, the interlinking wouldn't exist. Only built if there was a second project put forward as there would be nothing to link it to. Would probably be beneficial to both parties anyway as it gives a second route of power if there were any issues with the other cable connections and insurance. In addition the requirement for these linkages is written into HND.

**MK**: You refer to site specific data, what data sets influenced the refinement of the array areas? My interest in particular is whether mobile species data sets, marine mammals and more specifically sea birds, influenced what was selected.

**AC** – was All available data sets were considered and the refinements were made on engineering and consenting grounds. MacArthur Green, leading on ornithology, and RHDHV, leading on marine mammals, provided their input into the decision-making process based on site-specific aerial survey data and desk-based information, but also considered were data relating to commercial fisheries, aviation and radar. benthic data, ground conditions and engineering requirements were also taken into account.

**DB**: All of that data didn't tell the same story, so judgements on how to make those reductions. The details will be presented in the ES..

AC



**MK**: That will be helpful, in particular for the HRA receptors as one thing we will be looking into is seeing if the mitigation hierarchy has been applied regarding those.

**PB**: Bird data analysed (MacArthur Green hot spot mapping) was used as part of the process. Like Amelia said, it's not the whole picture.

MK: Did that cover marine mammals as well?

**PB**: It was focused on birds as there was no clear pattern for marine mammals across the sites.

**MK**: It will be interesting to hear if there have been any spatial patterns for marine mammals across the site.

### Marine Mammals: PEIR comments and responses

- A series of slides were presented with comments from the PEIR consultation. The comments were addressed throughout the presentation (slides 12-15).
- Regarding the baseline information, only harbour porpoise (HP) and grey seals (GS) survey data was able to be used for density estimates from the site-specific surveys.
- Any unidentified mammals (e.g. unidentified dolphin or porpoise) were placed into the HP density outputs and estimates. They are lower than the SCANS estimates, so we went for the SCANS survey for the ES chapter (both HP and HP dolphin species) as a worst case, precautionary assessment.

#### **Questions**

CO: Is this from the 12- or 24-months survey for the baseline?

**SB**: From the full 24 months. We have included the Coastal East Scotland MU for bottlenose dolphin, and we are proposing that we only use this MU to assess the activities that can be due near the coast than offshore. Not sure if everyone would be in agreement with that because they are a population that is considered coastal, and the bottlenose dolphin density estimates are for the offshore estimation.

**CO**: I cannot give any concrete answers to anything in the slides as I haven't had a chance to review. Will respond following presentation.

ACTION - NE to review post-meeting and provide response to approach on use of Coastal East Scotland MU.

Regarding the comment about using Waggitt et al density estimates:

- For common dolphin and white beaked dolphin, there are no other density estimates that we can use. So, for the site-specific surveys we had two recordings of common dolphins (DBS west) and that calculated the density at 0.02 which we felt wasn't a realistic density estimate, hence why we used the Waggitt data. White beaked dolphin, 4 sightings on DBS west and 3 on DBS east 0.07 density estimates.
- Lack of sightings led us to turn to Waggitt et al data.
- Grey seals we have the option to use just grey seal density estimate (DBS East - 0.034) or the seal species (unidentified) and attributed term to grey seal (0.049). However, in the PEIR we have been using the Carter et al density estimates. No sightings of Harbour seal in site specific data.
- For the seal species the reference populations are not updated in the table from the SCOS survey (2022) as its 2023 now.

SB



#### Questions

**SB**: Any thoughts on this approach or whether we should disregard unidentified species?

**CO**: I definitely wouldn't disregard unidentified species. I would go for a more precautionary approach, to include HP/ dolphin species as you are certain there is something there that can be impacted regardless of not knowing what it is. In terms of densities, again the best thing is to go precautionary if possible.

For example, with white beaked dolphin your site-specific survey has your density higher than Waggitt. So, I think we would go for site specific data and then question it if other surveys are higher as it is more accurate if it's of your site (compared to Waggitt for example). When choosing which densities, go precautionary.

Action: RHDHV to decide on best approach to factoring in unidentified species.

### **Underwater noise modelling**

- Following refinement of array boundaries, new locations have been modelled on DBS site, as a worst-case for sound modelling..
- SB presented the reductions in modelling parameters for the ES on slide 19.
- Underwater noise modelling for UXO clearance shows PTS ranges that cannot be mitigated with standard mitigation such as marine mammal observer, Acoustic Deterrent Devices (ADD) or Passive Acoustic Monitoring (PAM), so additional measures may be needed
- UXO clearance at Sofia research- two UXO to clear, high order and two
  attempts at low order. Other areas have recorded a positive experience
  with low order so feedback is currently conflicting and further evidence is
  required on low order efficacy.

## <u>The approach to assessing disturbance, particularly for Minke Whales</u> (thresholds)

- Based on research, Silve et al (2015) and Kvadsheim et al (2017) found that MW move away from source due to 146dB noise level (1-2km) and) 155dB noise level (6km).
- Gordon et al (2003) reviewed effects of seismic surveys on Baleen
  Whales. The focus of research was on Bowhead and Humpback whales
  and showed behavioural response from seismic airguns (8-30km). Impulsive sounds, similar to piling so taken into account as a comparison as
  similar sound pressure level.
- EDRs allow gap analysis and used in precautionary approach when evidence is missing.
  - Sound levels are thought to link to behavioural response in a marine mammal. This is calculated for each wind farm individually each month, and then different means of determining the spatial activity are developed for the different context of different turbine installation, operation and vessel operations.
  - Used for smaller projects (smaller piling size), so might not be hugely relevant, more research is required. Found that to use a precautionary approach, to have 20km disturbance range for all cetaceans.



- Findings were that sound thresholds, anything above 171 dB underwater can result in a significant behavioural response for Baleen
- So, in the PEIR TTs-onset was used as a proxy for disturbance, recognising that there are limitations to this approach.
  - Natural England comment was accepted.
  - MMO comment was not accepted.

#### **Questions**

CO: I don't think Natural England accept TTS onset as a proxy but accept that it is ok until there is something else. EDR is an ongoing discussion.

**SB**: Unless something else comes out, TTS will be used. We do a lot of research also, e.g. Dose response curves - Graham et al 2021 for harbour porpoise. But we are aware that species have different hearing ranges. If anyone has any ideas for this, it will be greatly received as there is a knowledge gap in the whole indus-

ACTION - ETG to provide any alternatives to use of TTS onset as a proxy, if available.

#### Comment on adding a 4km range for the Disturbance Vessels

- If both sites (DBS) were constructed at the same time, there would be an anticipated maximum of 135 vessels on site. When looking at the impacts, we looked at a 4km range of each vessel, but it was over precautionary and unrealistic. So, we decided on a 4 km buffer around each array site.
- Vessels could be anywhere in the array areas, a 4km buffer was added around them to assess any impacts on marine mammals. Both arrays total a 1,404.91km area of impact to monitor for disturbance.
- We thought that a buffer could also be applied along vessel routes to/from site (if known), for example a 2km buffer.
- We have added in a list of ports to assess the disturbance of vessels on seal haul out sites because a comment mentioned how this was lacking in the PEIR, noting that the final construction ports would not be confirmed until post-consent

#### Questions

SB: Regarding addressing the disturbance of vessels, do you agree with this approach?

MK: Could you produce a note? It is hard to judge from a slide full of numbers.

SB: Yes, I can do that and break it down into different areas. I will get send everyone the note.

ACTION: Methodology note to be produced and issued to stakeholders following meetings.

#### **Noise mitigation measures**

All mitigation measures will be considered where appropriate, including noise abatement systems.



- The most efficient method will be presented in the Outline MMMP and submitted with the DCO application. This will be based on the updated underwater noise modelling and the refinement of the project design.
- The final details will be known post consent and prior to construction to consider the final project design, the piling parameters, the latest guidance, new evidence, and any technology options that may be available in the future.

#### SIP

- The consultation on the final SIP will be conducted with the MMO and any other SNCBs and a full consultation log will be maintained.
- There will be an ongoing requirement to review the need for the projects, mitigation and management measures with the MMO and other organisations. The applicant will consult with Natural England on the development of the SIP.
- Drafts will be shared at consultation during post consent/pre-construction.

#### Questions

**EB**: Does all of that refer to post consent or are you planning to submit a draft SIP at the point of application so that draft can be consulted on during the evidence plan process?

**GK**: A draft will be submitted with the DCO to outline the options that could be considered and included in the final SIP as we won't have the final piling design or dates of construction. It will be finalised post consent, but pre-construction.

**MK**: Worth highlighting our recent relevant reps on this subject. With Hornsea 4 and the ongoing discussions in those examinations, we expressed our concerns with how the SIP process is operating at the moment. We think it's the right mechanism, just concerned how these sequential applications are managed when there is a mix of things that are known well in advance but emerge at quite short notice. We suggest committing to mitigation measures at the point of application, and then in the future (once the project specific requirements are known) they can be removed.

This issue at present is that despite best endeavours, we have a booking system with large projects taking up most of the threshold because they are there first. This has been just about manageable, but summer of 2024 I don't think this will hold. I think there needs to be a shift towards everyone trying to bring their own impacts down, rather than working out what's coming when.

**SB**: In the SIP, we should be going in with planned mitigation measures to keep threshold down for the porpoises.

**MK**: There is evidence that you can bring the EDRs down with noise abatement systems. Bear in mind you may be in the examination mix with many other projects. We are raising this concern with all Round 3 projects that haven't put their SIPs forward yet.

**ZT:** We encourage considering low noise techniques and noise abatement methods which may be required in the future.

**SB**: There is always new technology emerging as well. If we commit now, there could be new technological developments later which may provide better solutions.



**ZT**: Do you know when you will be consulting with us on the final SIP?

AC - It will depend on final construction programme.

#### **Monitoring Requirement**

 Natural England might require underwater noise monitoring during piling and marine mammal monitoring, so a monitoring plan could be proposed post consent, prior to construction. The final proposed plan can be based on final project design, updated assessments, finalised MMMP or any new guidance. There is no advice on what monitoring should be undertaken. Any outstanding knowledge gaps can be suggested as a priority for monitoring.

#### **Questions**

SB: Any advice on monitoring requirements for the future?

**EB**: Is the project intending to submit an in- principal monitoring plan at the point of application? That is what we would expect where the outlined monitoring marine plans are to be developed for submission. We appreciate that advice hasn't been provided on this yet, but we usually expect it to be discussed as part of the evidence plan process to inform what would go into that in -principal monitoring plan. We haven't provided that advice yet, and we also haven't been asked for it either.

**SB**: We will discuss this. Going forward, especially in that area, a lot of windfarms are having to do additional monitoring.

**EB**: Yes, it is expected in most projects. In terms of validating your predictions in the ES and the conclusions of the HRA, marine mammal monitoring would be expected.

SB: We will discuss doing an in-principal monitoring plan.

**MK**: There's a bit of a blip with this one, I can't remember which project it was, but instead of doing project specific monitoring, at the time the monitoring priority was to extend DEPONS based on the most pressing need at the time and was seen as the best use of monitoring. Might not be the best appropriate approach or site specific but could have a role, particularly if using noise abatement. As Emma says, the principal monitoring plan allows you to set out the likely things that are going to be particular issues, and hypothesis around those issues.

### **Cumulative Effects Assessment: CEA**

- Screening CEA report Initial screening presented on slide 27.
- It is planned to be submitted in the Marine Mammal chapter and consulted on prior to DCO application.

#### **Method for CEA**

- Presented outline methodology to be used for CEA.
- Have only done a full screening of the CEA, so have done an indicative CEA of disturbance. We have done HP and GS because they were the most abundant species in the site-specific surveys. No spatial pattern of marine mammals. Both species have recommended EDRs.
   HP: 8.7% of North Sea reference population was disturbed, so that calculated into a medium magnitude.



GS: 23.3% of SE MU and 13.3% of the wider MU – SE and NE MU. High magnitude and with using the Russel et al 2016, 25km disturbance range.

• Based on these results, modelling for some species will be required.

### **Questions**

SB: Do you agree with this approach for the modelling?

**MK**: If you have a method statement, it will help us understand how you have gone about it and see it in a bit more depth.

**ZT**: Have you got monitoring conditions in your draft DCO? **AC**: The DCO is yet to be drafted, but this will be looked at.

# Summary and next steps

- We have started the ES chapter drafting.
- Considering all the PEIR responses and will need to be updated with the underwater noise modelling report.
- Draft ES Marine mammal ETG meeting 20<sup>th</sup> November 14<sup>th</sup> December. Present the draft assessment findings based on the final project freeze design.
- Updated baseline, considering any comments from PEIR consultation and present any findings from the updated noise underwater modelling.
- Final chapter and application submission January March 2024.

#### **Comments**

**CC**: Draft ETG dates, should get those invites out ASAP.

**EJ**: To make best use of the meeting, all relevant data needs to be given at least 2 weeks prior so we can have a more informed discussion. Comments might not be able to come prior to Christmas if we do not get data in advance.

Action ID	Action	Owner
1	NE to review post-meeting and provide response to approach on use of Coastal East Scotland MU.	NE
2	RHDHV to decide on best approach to factoring in unidentified species.	RHDHV
3	ETG to provide any alternatives to use of TTS onset as a proxy, if available.	ETG
4	Methodology note to be produced and issued to stakeholders following meetings.	SB

Appended Documents - Presentation Slides, Marine Mammals Methodology Note



	Offshore Archaeology Expert Topic Group Meeting			
	<b>Document Number:</b> 004931579-03			
М	eeting with:		Offshore Archaeology ETG	
	Location: Online			
Start 7	Time of Meeting:	10:00	Date of Meeting: 20	).09.23
	Attendees	Initials	Role & Organisatio	n
		DB	Offshore Consents Manager,	DBS, RWE
		HP	Consents Manager, DBS	, RWE
		AC	Offshore Consents Manager,	DBS, RWE
		TM	Wessex Archaeolog	у
		ST	Senior Marine Geophysicist, Wess	ex Archaeology
		VB	Principal Marine Heritage Consu	ltant, RHDHV
		AE	Principal Marine Geophysicist, Wes	sex Archaeology
		CC	Marine Environmental Consult	ant, RHDHV
		SB	Graduate Environmental Consu	ltant, RHDHV
		SC	Historic England	
		AH	Principal Marine Geophysicist, Hi	storic England
		RN	Principal Archaeologist, Hull Archaeological Partnership	
	Apologies	Initials	Role & Organisatio	n
		SD	East Riding of Yorkshire (	Council
		KE	Historic England	
		JG	Hull Archaeological Partr	iership
Meeting A	<ul> <li>Project Updates</li> <li>Seabed Features Assessment</li> <li>Marine geophysical survey – ECR</li> <li>Andy Emery: Results: Large Data set</li> <li>PEIR Comments</li> <li>Summary and next steps</li> </ul>		et	
Item	Item Description/ Discussion		Presenter	
	through The C  The onshore c where possible Expected to ce (through the F	Crown Estate and offshore e. onnect to a Holistic Netw	vere awarded to RWE as preferred bidder e's Round 4 auction process. electrical infrastructure will be co-locate new National Grid substation at Creyke B york Design (HND) Process) providing ben e Scotwind and other UK offshore wind pro	d eck efit of



# Site Selection:

- PEIR consultation closed middle of July, now reviewing responses.
- Responses coupled with more detailed analysis of site-specific survey data have allowed refinement of the array area boundaries. Shown in figure in slide 8 (purple and mint green).
- Buffer area is still present. Pale orange to allow inter-platform cable routing. Cables will be buried wherever possible.
- Refined offshore export cable routes currently consulting on site selection for offshore cable corridor. Further information may be seen in the Dogger Bank South Offshore Export Cable Corridor and Landfall Site Selection Report (EcoDoc Ref: 004916710-02) issued to ETG members for review on the 12th September
- Presenting the refined boundaries which we are looking to take forward for the Environmental Statement (ES).

## Questions/Comments:

**SC**: We did receive the consultation on the landfall site selection, and I have requested whether it would be possible to get some shapefiles of the options.

**CC**: I have liaised with our GIS team to make sure they were correct and have just got those through so I will send those though asap.

ACTION: Charlie to send though GIS shapefiles onto recipients of Site Selection report. Post-meeting note – Action has been completed.

**DB**: This data set will be sent onto everyone.

**RN**: Just so you are aware, we now know there is a load of archaeology on the land side of the landfall.

**DB**: We have picked this up from our onshore colleagues and understand that. The team are working through these implications.

**VB**: I was going to add to that. I am liaising with my onshore colleagues at RHDHV, so I am aware of the work they are doing, just to provide that extra security.

# **Seabed Features Assessment**

- Last meeting was on our approach to data analysis, but the main aim of this call is to present initial results and focus on the export cable route.
   Summary:
- Within the array area the data assessment has been completed (2022, Fugro):
- 495 seabed features across the whole area.
   Distribution wise, although the project areas are now smaller we haven't opted to cut any of the extra data adjacent to the new array areas as its all added context.
- 18 A1 features Of archaeological interest sites (yellow in slide) evenly distributed (highlighted in yellow)
- 6 Wrecks. (3 previously identified and 3 new) and debris associated with these wrecks (debris fields identified as A1), and a series and magnetic anomalies.

VB



- 25 A3 all previously recorded fisherman's fasteners. Records that have been on fishing charts.
- 42 AEZs (archaeological exclusion zones) across the array areas. This is because some of the AEZs might have a A1 associated with it.
- In terms of numbers and distribution the data has become a very revealing result assessment. Nothing seems to be absent or missing.

#### Questions:

**RN**: I would query that being described as an even distribution of the A1 data. As two thirds of the A1 sites are in your north-western end.

**VC:** From an offshore perspective, we simply mean there is no significant clustering, i.e. they are not all in one place and likely to be connected. I will redefine how I use that word.

SC: The three new (wrecks), were they metallic? Any corresponding mag?

**VN**: Magnetic. In terms of the new wrecks, all sites have got large magnetic signatures associated. Not looking at wooden sites.

# Marine geophysical survey

- Data acquired in 2022 by Fugro.
- Some sections of the ECR was a little bit different as we used the standard data types and back scatter included as well as an extra in the study.
- Five blocks on the export cable route assessed.
- Similar assessment style to the array area, but Block A (most nearshore) was more intense due to increased targets.

# <u>Data coverage:</u>

- Backscatter mostly in block A identified. Backscatter was used to fill in any gaps due to the presence of fishing gear inhibiting towed equipment during the survey
  - Done as a full assessment with the raw data, so this has effectively filled in those gaps.
- No data coverage for the full width of the ECR red line boundary some small gaps down the side that were not covered by the geophysical data.

# ECR data resolution: Line spacing blocks.

- Blocks BCEF 100m spacing Set methodology as this data was comparable with the array data (standard approach).
- Block A nearshore (much closer on the line spacing) complimented the array assessment and was completed at around 15 and 35m spacing.
- Bathy data: Different resolutions provided. High detailed resolution areas (Block A) at 0.25m grid, Block B was at 0.5m grid, and all other areas were done at 1m grid. Those sections of Block A and the rest of the ECR are all comparable to identify anomalies.

# **Anomaly density:**

Block A – nearshore – significantly busier. Matches with the identified fishing gear that caused problems during the survey itself.

VΒ

ST



 Block A was busier, Block B and the rest has more distribution across the area - further out there as more evenly distributed points. No suspicious gaps.

## Rational for selective approach in the ECR areas:

- Success of implementing a refined approach has translated well.
- Good resolution of data.
- Has allowed us to look at everything we needed to.
- No missing anomalies necessarily.
- The selective strategies previously used looked at parts of data, rather than what we were doing, whereby we looked at all data across the ECR/array but with a threshold approach – attempting to filter out anything that is natural.
- This allowed the ECR to get a full resolution of data, in addition to a full raw assessment (was done in block A) – overall allowed for a standard full assessment.

# Alternative approach to assessment:

- We looked at all the mag data for the array and ECR.
- Interpreted with a pick threshold set (tailored to the data) skipped out a
  load of anomalies that were more likely to be natural (ground truthing
  studies). This was tailored to the data by testing out thresholds.
- Process bathy backscatter and side scan geo tiffs were all interpreted.
   A tagging threshold of 5m of any minimum dimension. Anything that didn't have a 5m dimension wasn't tagged in the geotiffs, with the exception of anything that looked anthropogenic.
- Looked at the raw data to make sure we didn't miss anything as a fail safe.
- Detailed assessment of the raw side scan data. It came in after we have looked at those data types. Specifically looked at anything that looked like wrecks or debris (in the array area), anything that was over the threshold in the mag data or anything that looked suspicious.
- For the ECR we tailored this more due to it having more sand. We wanted to make sure we covered everything.
- Nearshore, Block A, a full assessment in the raw data. Wanted to make sure we had everything, a standard assessment, no thresholds, and a full comparison.

# Methodology for ECR:

- **Side scan**: similar to the array. Grid was placed on top of the data to avoid missing data. 250m grid was used. Checked that it fit the data.
- Good resolution.
- Interpreted high frequency mosaics occasionally they would have little gaps. Low frequency was placed below the high frequency to catch any gaps.
- Quick and swift process picked up significant anomalies that need to be tagged.
- **ECR SSS mosaic**: High Frequency provided more detail, Low Frequency gave us more coverage but not as detailed. Comparisons were done.
- Comparison: Raw side scan data vs SSS mosaic: Raw (sand) was more detailed compared to the mosaic data (grey) when identifying a



suspicious item. Allowed for checking and confirming anything odd in the mosaic. Helps take out any unnecessary anomalies.

- MBES bathymetry: The positioning was good.
- We had the option to assess from the Geo Tiffs or from the actual data itself.
- We used both, the Geotiff for confirmation at later stages and initial assessments with Fledermaus. These were done at 5m threshold across the area.
- Checked for anomalies for a little bit more extra (for the ECR particularly), anything suspicious anomalies from the bathy were checked in the raw data. Side scan allowed us to confirm the bathy data.
- Mag methodology: Mag threshold was lowered for checking.
- Interesting mag anomalies in the array were checked in the raw side scan data. Threshold was lowered in the ECR compared to the array. Anything over a certain threshold was double checked to see what was there.
- In the array we were checking for important sites EEZs, doublechecking anything suspicious, but there was greater number of anomalies in the FCR
- Used as another double check for the side scan to mitigate for all that sand everywhere.
- **SSS Raw methodology for side scan**: more emphasis on double checking for the ECR, compared to the array.
- No size threshold used to get full extent of wreck sites, debris field (full assessment). No 5m threshold.
- More cautious approach was used.

#### Results

### Overview:

- A total of 354 seabed features found across the ECR.
- Fewer A1: 8 A1 3 unknown UKHO wrecks and large isolated mag anomaly associated with debris.
- A number of A3: 5 A3 large number located in that gap between the survey corridor and the development area not covered by the 2022 data sets.
- There is clearly a lot more anomalies in the nearshore area compared to offshore.
- In Block A area (Raw data assessment) we have more data required.
   27 linear anomalies. Higher than anywhere else (likely fishing gear, rubbish), nearshore debris we expect to see.
- Smaller anomalies previous discussions whether or no we would miss
  these, but we have implemented measures to make sure these small ones
  are not missed out. For Example: 100 of those nearshore features are
  magnetic only anomalies, 76 are lower potential anomalies (smaller in
  size)
- Lower potential anomalies identified in Block A 27 below 3m in length.
- Block B is the smallest, the area where we are missing side scan and mag due to the fishing gear. Data gaps in the Block B.
   Overall correlation when having all the data types used in the assessment as smaller items are found to fill in the gaps.

VΒ



- Lots of magnetic anomalies, and frequently finding smaller items (as you move inshore).
- More presence of debris in the inshore area.

# Questions/discussion:

**SC**: Its interesting from a developer's perspective when seeing all of those anomalies. Archaeology kind of lends itself to that, whatever is investigated there will be a lot of work that is necessary. This suggests an area of historically high fishing activity, that is still has the potential to have anything of interest picked up.

**VB**: As Richard made reference to earlier, particularly in this area of the coastline – more erosion and onshore archaeology, debris. It will be interesting to see what elements could be eroded from the onshore as well. E.g., maritime debris and isolated finds.

**SC:** That is interesting with this particular project. There is that element or eroded material over centuries that is present in that location. There are a couple of locations, from the data at least, where there would be a need to cross potential cables or a least run parallel or close to.

Keeping the archaeologist informed in this live project is something to consider going forward as this is a live situation.

**VB**: Yes, especially when it comes to cumulative assessment. I am not sure if I will be successful in obtaining mappable data from other projects for the CEA, but it is something we are pursuing. Long term this whole region is going to bring information together.

**SC**: A collaboration could be done with other projects, and share data. There is a need for collaborative data.

**VB**: Don't think providing you with the draft ES chapter is the best option, as I don't think is the most relevant document for you. Instead, I will send the Wessex archaeology technical report prior to the submission of the ES. It will be more meaningful considering the time scales. We will receive it soon, and I will let you know when you should expect it and have a series of discussions or calls after to discuss.

Action: Victoria to confirm when the Wessex archaeology technical report is received and set up a call to discuss.

#### Paleo landscape Assessment

- Marine Geoarchaeology: Limited borehole campaign 2022.
- A sample from borehole retained. Nothing has been done with it yet, as we were waiting for this years results first.
- Requested an archaeology only call, for our own purposes, sitting in Fugro lab. It has not been split or looked into yet. We know there is full sequence (glacial) within the core, but we have no idea what is within it yet.
- We selected a location for ground truthing potential peats and organics, but we have not split it yet so not sure yet.
- Viral cores have marine sand directly over clay. 156 viral cores across the cable route.
- Reviewing these results.

Stage 1 report will set out the results of these, that will support the ES. Five bore holes from the near shore, chalk till and marine beach sand also.

ΑE



We have limited potential, delay next stages of the assessment and analysis to next phase of the geotech – planned for next year.

#### Results: Large Data set:

- Large data set long in terms of stratigraphy (focussing on the top 50-70m below the seabed)
- Stratigraphy that has been guided by Fugro interpretations of the data set. Fugro provided horizon names – standard in terms of horizon naming.

# Interpretation: What was identified: On seismic section

- Deepest stratigraphy large tunnel valleys.
- Units of continuous sub horizontal reflections- pre last glacial maximum marine sediments that are probably related to deposition from the last interglacial (125 thousand years ago), with channels incised into them (suggesting a period sea level low stand, where the area was exposed terrestrially) - potentially MIS 4. Not sure on the extent of ice in this glacial period, poorly preserved.
- MIS 2 record at DBS shows mainly glacial till, pro glacial deposits, lots of deformed stratigraphy, especially in the west area of the core.
   Thin skinned glacial tectonic deformation – not involving the sub pre LGM basement, its just reworking material that's brought in with the ice sheet.
- Thick skinned deformation in west area deforming of the ice sheet, getting down into the preglacial sediments and deforming them to a complicated degree.
- Glacial deposits form the bases for palaeo-topography.
- Zoom in on slide: (green) Base/channel area reflections stacked onto each other found. This implies a large and wide area of a pro glacial river – braided, Anastomosing channel, stacked channels etc. Not mapped out in detail but clear ideas.
- On top of the reflections, are low amplitude reflections that are draped –
  implied that at some point an event dammed the pro glacial river, that
  formed a ribbon lake We can't tell at this stage but its an interpretation.
  Deltas eroding off the sides, depositing into the lake.
- Mounded features identified all reflection within them, implies single stage of movement.
- Potentially identified preserved seabed bed forms.
- Stratigraphy of different phases of tunnel valleys.
- Deep valley complicated and wide. Mid Pleistocene to early quaternary units found (dark orange horizon)
- Lots of phases of tunnel valleys within the North Sea, so hard to know exactly when these were. Probably from glaciation during MI6 12?
- On top: small channel network interesting morphologies identified: channels, mounds, areas of bright reflections, climate forms, erosion, mounds potentially coastal barriers preserved.
- Fugro interpretated surface data was used (taken with a pinch of salt) to map out all the channels. Now complete.
   Some strange and complicated relationships between the channel networks
- Brown channels deeper channel valleys (wide) and straight.



3	RHDHV to issue potential dates for a follow up meeting (November – early December)	CC
2	Let know when the Wessex archaeology technical report is received and set up a call to discuss.	VB
1	to send though GIS shapefiles onto recipients of Site Selection report.	CC
Action ID	Action	Owner
	SC – Might be useful to pencil in a date. Once shapefiles are sent, I might contact Andy to have a chat.  Actions: RHDHV to issue potential dates for a follow up meeting (November – early December).	
	<ul> <li>Summary and next steps:</li> <li>Chapter drafts are ongoing.</li> <li>Could look to schedule another meeting later in the year to cover any queries regarding this meeting / discuss the Technical Report</li> <li>DCO application to be submitted in March 2024.</li> </ul>	
	<ul> <li>On top of these channels is the big pro glacial sandy river, large lake basin and smaller channels.</li> <li>PEIR Comments <ul> <li>In the ES chapter we are going through and responding to each comment. No concerns to raise.</li> <li>Concerns from Historic England were mainly about risks associated with new approaches to analysing the data.</li> <li>Project layouts will take these all into account, will be preconstruction survey assessment with further details provided. Uncertainty at this stage is standard, but we will look at the preconstruction data and additional data where needed where were need clarification. – lots of the comments were referencing this concern/discussion.</li> <li>This whole process will be included in the outline WSI to be submitted as part of the DCO application.</li> </ul> </li> </ul>	VB
	Red channels – sinuous and narrow channels – complicated drainage pattern that seems to be draining the local basins (MIS 4 channels potentially).	

Appended Documents – presentation slides



Benthic and Intertidal Ecology Expert Topic Group Meeting				
	<b>Document Number:</b> 004931578-03			
Meeting with:		Benthic and Intertidal Ecology ETG		
Location:		Online		
Start Time of Meeting:	15:00	Date of Meeting:	21.09.23	
Attendees	Initials	Ro	ole & Organisation	
	DB	Offshore Co	onsents Manager, DBS, RWE	
	HP	Consei	nts Manager, DBS, RWE	
	AC	Offshore Co	onsents Manager, DBS, RWE	
	CC	Marine Enviro	onmental Consultant, RHDHV	
	SB	Graduate Envi	ronmental Consultant, RHDHV	
	PP	Principal N	Marine Consultant, RHDHV	
	EJ	Senior Case	e Manager, Natural England	
	LB	Principal	Advisor, Natural England	
	RP	Case C	Officer, Natural England	
	PC	Marine Lea	ad Advisor, Natural England	
	YC		Marine Space	
	LT	Marine Lic	ense Case Manager, MMO	
	SB		Cefas	
	MW	Planning Spe	cialist, Environmental Agency	
	ОВ	Env	vironmental Agency	
	TD		Wildlife Trust	
	CP		Wildlife Trust	
	OS	Senior C	Consultant, Marine Space	
	LD	Senior Mari	ne Consultant Marine Space	
	RB	East Ric	ding of Yorkshire Council	
Apologies	Initials	Ro	ole & Organisation	
	LA	Marine Licensing Case Officer, MMO		
	JE	Cefas		
	IB	Cefas		
Meeting Agenda/ Objective(s):		<ul> <li>Welcome and Intr</li> <li>Project Update         <ul> <li>Benthic and Ir</li> <li>Review of PEIF</li> </ul> </li> <li>MZCA Considerat</li> <li>Fish and Shellfish</li> </ul>	atertidal Ecology R Responses ions	



	<ul> <li>Herring and Sandeel PEIR Queries</li> <li>Other Related Queries</li> <li>AOB</li> </ul>			
	Summary and Next Steps			
Item	Description/ Discussion	Presenter		
	<ul> <li>Project detail updates</li> <li>The Projects were awarded to RWE as preferred bidder through The Crown Estate's Round 4 auction process.</li> <li>The onshore and offshore electrical infrastructure will be co-located where possible.</li> <li>Expected to connect to a new National Grid substation at Creyke Beck (through the Holistic Network Design (HND) Process) providing benefit of integrated connections to Scotwind and other UK offshore wind projects.</li> </ul>	DB		
	<ul> <li>Site Selection:         <ul> <li>Preliminary Environmental Information Report (PEIR) consultation closed middle of July, the Projects are now reviewing responses received.</li> <li>Responses coupled with more detailed analysis of site-specific survey data have allowed refinement of the array area boundaries. Shown in figure in slide 8 (purple and mint green).</li> <li>Buffer area is still present. Pale orange indicates inter-platform cable routing. Cables will be buried wherever possible.</li> <li>Refined offshore export cable routes – currently consulting on site selection for offshore cable corridor. Further information may be seen in the Dogger Bank South Offshore Export Cable Corridor and Landfall Site Selection Report (EcoDoc Ref: 004916710-02) issued to ETG members for review on the 12th September.</li> <li>Presenting the refined boundaries which we are looking to take forward for the Environmental Statement (ES).</li> </ul> </li> </ul>			
	<ul> <li>Benthic and Intertidal Ecology</li> <li>Comments received were mainly regarding draft survey results and lack of bespoke physical process modelling.</li> <li>Final ES will include bespoke marine physical processes modelling (that is currently being undertaken) results.</li> <li>Any changes from the draft results presented at PEIR will be highlighted in the ES chapter.</li> <li>Use of existing data sets, from Creyke Beck and Teeside OWF EIAs were highlighted because of their age – decade old. The assessments were based on our site-specific data where possible. Use of older datasets were to provide comparison between them and the current baseline. This will be clarified in the ES.</li> <li>Displayed new figures not shown in PEIR, detailing potentially sensitive fauna and habitats within array areas and export cable corridor (ECC), based on original PEIR boundary (not updated array areas) – array figures will be updated within the ES.</li> </ul>	CC		



- Primary sensitive taxa noted were species of sea anemone potentially the UK timid burrowing anemone. Again, it should be noted that of this taxa, the majority were recorded at a family level or higher rather than a species level. Also, there are possible observations of protected species rather than confirmed.
- Potential Piddock Burrow located found in the drop down as STO48 (within the temporary construction buffer around the array areas)

Action: Fugro figures to be amended to use final array area boundaries and clearer colour choices.

# Project Design Envelope: Comments:

- Request for gravity base (GBS) and suction bucket foundations to be removed from the design envelope can confirm that they have been removed for turbine foundations, only monopiles and pin-pile foundations remain which will result in a reduction in maximum area of seabed footprint between the PEIR and ES.
- GBS and suction buckets remain in the envelope for offshore platforms to accommodate the potential for larger top side platforms to be used.
- Comments regarding the number of platforms proposed at PEIR. The intention is to reduce number by one platform per array area and to one platform in the ECC pending final design freeze confirmation.
- Any damage concerning the underlying glacial till sediments in the SAC will be considered permanent damage. E.g. during cable burial, UXO detonation or works along the export cable corridor near land fall. A cable burial risk assessment (CRBA) has been conducted, this will aid in avoiding areas of shallow glacial till.
- Comments on using recent UXO survey reports to inform the assessments. Having reviewed the MMO public register, the most recent ones are from Dogger Bank B UXO clearing activities within the Dogger Bank SAC. In these activities the max. crater depth reached was 0.8m. The Projects' will consider potential for deeper detonation depths in the assessment however, as deeper depths have been recorded in studies previously.

## Holderness Coast Inshore MCZ

- Permanent cable corridor no longer routes within the Holderness Inshore MCZ.
- Potential for indirect effects as a result of sediment dispersion which will be assessed in the ES. The Spurn head geological feature and the impacts of sediment dispersion effects will be assessed in the final MCZA.
- Comments in relation to cofferdams around the landfall, and the effects on the intertidal and nearshore area, which were noted in the physical processes chapter. This will be confirmed and will be assessed at ES.
- Flotation pits have been removed from the Projects' design envelope.
- Comment regarding use of proxies in MCZ assessment as the advice note for the Holderness Inshore MCZ was not available, unlike the Holderness Offshore MCZ, which provided site specific advice. Noted that the use of proxies for the inshore MCZ wasn't ideal. It was acknowledged there are limitations on using these for the Holderness inshore MCZ.



### Cumulative EA:

- Comments regarding considering permanent infrastructure in the view of other existing infrastructures (current and under planning) – other wind farms, O&G and associated pipelines. They will all be considered within the ES.
- Provisional agreement on the list of other projects to be considered in the CEA - will be reviewed and updated with new project updates to ensure the accuracy prior to submission - expand upon if there are new projects in the pipeline.
- Comments regarding CEA of EMF Teeside A and B mainly. Assessment concluded a low magnitude impact level of EMF. Other offshore wind farms will be considered within the CEA for Benthic and Intertidal chapter.

# Questions:

**LB**: We raised a few comments in relation to benthic that haven't been put up here. How will you address the rest of the comments.

**CC**: Yes, all comments have been taken into consideration. The ones presented today were ones that had been raised by multiple stakeholders. All will be addressed and a response provided to every comment received.

**LB**: There is an issue around how? You might have noticed that we didn't say a lot through the slides – so silence doesn't mean agreement – it means we have insufficient information to provide any advice. What you said today we cannot comment on or advise on. Please do not take this as any agreement.

Insufficient amount of information provided either before or during this meeting for Natural England to provide any advice to help the Projects move forward. Just flagging that we cannot comment.

CC: That is noted.

**EJ**: It was raised on the marine processes call that the Projects aren't committing to decommissioning cable scour protection at the end of life, and how you will be assessing this in terms of the benthic topic.

**CC**: We don't have an answer yet, we are still looking into this. Will review and consider this in the ES.

#### Fish and Shellfish Ecology

<u>Herring and Sandeel Habitat Assessment and Physical Disturbance:</u>
Presented a series of slides with questions designated for the ETG regarding PEIR responses.

Regarding the herring and sandeel assessment for PEIR, Marine Space produced heat maps indicating herring spawning locations and sandeel habitat. The MMO do not support the quantification of herring and sandeel habitat.

**OW** - Would the MMO and Natural England prefer that the quantitative assessment is removed all together and we approached with a qualitative approach only? Or does the MMO have an alternative preferred approach?

**ZT** - Will need to take that away and provide a written response. Hoped that Cefas would be able to attend. Suggest having a later discussion about the

OW



approach – anyone who wants to ask any questions, join the call or add comments is welcome to come.

**OW** – There was a request for additional sandeel data to be included in the heat map. This has been acknowledged and will make every effort to incorporate that in the model where possible. If the relevant data sets are not able to be implemented in the existing model we can take away from them and discuss in text. Will incorporate the benthic data into the data set, for extra context of the sandeels in the region.

**OW**: Did the commenters have specific data sets in mind? They have mentioned IBTS data, Dogger Bank A and dredge surveys. Are these dredge surveys publicly available, and if not, can they be provided? And regarding the IBTS are there specific years in mind? Okay if that needs to be a written response.

**ZT**: Will provide a written response.

**OW** - No recommendations on additional herring data - so a confirmation of this would be appreciated.

**OW** - We currently have an update to the modelling approaches undertaken within the chapter for the use in the aggregate sector. If that is approved by the MMO prior to publications, those figures might be included in the chapter. We wanted to raise that this won't change the assessment, just the presentation and increase the modelling granularity – produce more informative figures.

# **Herring and Physical Disturbance:**

**OW -** Comments received from the MMO indicated potential inclusion of a licence condition that could restrict works between August and October inclusive.

• Looking through recently granted licences in the region, the Scotland to England Green Link 1 Cable had a similar licence condition that ran from August to September due to potential impact on the same population.

**OW** - Can we get clarification as to where this conditional difference has come from?

**ZT -** I wasn't involved in the granting of that licence and I am not sure where this in relation to your project. Looking at the consultations undertaken, it was likely due to northerly location and that there was evidence to suggested that the herring populations were not spawning in October. If you have any evidence to support this, that would be beneficial to support the ES to support having a shorter timing restriction.

**OW** - Will need to go and confirm this, but my understanding is that the Banks population spawning begins in the north and transitions south. It might be literature dependent, it's August within the dogger bank region when spawning is least likely to occur. That's appreciated, and I will include this within the chapter.

**ZT** - Should all be on the public register if you are interested in looking at the consultation comments for that licence.

**OW** - Within the aggregate sector at the moment there is very early flotation of potential use of a herring spawning observer during the spawning season.

Drop Down Video to observe the spawning in a given region, following identification of herring spawn. A work stop order could be implemented to allow all spawn to hatch and distribute, and then with following this time period it could allow for works to continue again.



 This could help avoid the need for a blanket 2 – 3 month period work stop, the work stop could be implicated when the population has spawned – allowing for the 10-20 days to hatch and disperse, following that works can begin again.

**OW**: Does the MMO have any thoughts on this approach? Is it something you would consider for these Projects?

**ZT:** Will provide a written response. But for initial comments, I am not aware of this being a condition in any previous licences or consents. Still, it would be useful to have a methodology of how the herring spawning observer would be undertaking the surveys and what the thresholds would be. E.g., will it be one herring spawning observer in the area or multiple? – just so we can assess if it will be effective or not.

- If it is a novel condition, we might require further discussions, and discussions with Cefas fisheries.
- Do you have any more recent data no herring spawning, as 2002 is quite old now.

**OW**: Yes, we are looking for specific moving data on the Banks population, not a huge amount data on the Banks population. So, if you are aware on any literature, that would be greatly appreciated too. In terms of specific movement of the Banks populations that is the best we could find in public literature.

**OW** - We are currently working with a number of clients in the aggregate sector who are also having discussions with the MMO. To proceed we would require further discussions with yourself and Cefas etc. to develop this procedure. We will wait for a written response and approach that following further conversation.

Action - MMO/Cefas to provide written response to herring and sandeel queries.

#### **Underwater Noise Comments**

Wanted to discuss the MMO request to include a 135 sound exposure level (SEL) for single strike for a disturbance criteria in the assessment. This slide shows the results from the paper, but the points we wanted to bring up were specifically in the paper the authors mentioned:

- The study was conducted in an area that is not exposed to huge amount of anthropogenic activity. The authors stated that the data has been presented on the levels of impulsive sounds. However, this data cannot be used to define the SEL criteria.
- Another paper in the same year, again stresses that it would be premature to use these to define SEL for said species, as the same species under different conditions might respond differently.

**LD** - This is a different species compared to our study, and a different location. We feel that this is not necessarily an accurate representation for this location and species, were hoping to get more insight on how best to move forward.

**ZT** - Will need to take this away and discuss with those who couldn't attend, and provide a response to you.

 $\mbox{\bf LD}$  - That's greatly appreciated, we understand that there might not be other papers available, but with this paper so clearly not applicable, it's not accurate to

LD



use it. If this is required, we would like to just get more clarification on the actual limits, as in the paper they present a 50% response rate to impulsive sound, which is measured as the sound power level (SPL) from peak to peak and the SEL per single strike and cumulative number of strikes.

**LD** - In the project envelope for DBS there may be a multiple number of strikes, so is it more applicable to use the limits for the cumulative, if we are moving forward with this paper? Also, bringing up that the figures we used for underwater noise, the displayed boundaries are for auditory injuries (TTS and PTS) – both presented for SPL, so if we do move forward with the 135db limit (SEL single strike) we would have to convert that to SPL. Just wanted to raise it might look exactly the same as the paper. Any additional insights or thoughts would be greatly appreciated.

**ZT** – are you able to post those questions into an email?

Action: MarineSpace to pull together a note to issue to ETG on underwater noise comments.

# Other Queries

**OW** – Do the MMO or NE recommend any other data sets be included throughout the chapter for incorporation into the baseline, aside from those already discussed for sandeels?

**ZT -** We will provide a written response.

**OW -** There was one comment by the MMO regarding permanent habitat loss assessment that correctly stated that permanent habitat loss will start during the construction phase, and into the operations phase because that has been done in previous EIAs. Would the MMO want the permanent habitat loss be included in the construction phase or left in the operation, and include a statement that permanent habitat loss will start from before the construction is completed.

**ZT** - We would want the permanent habitat loss to be in the construction phase, but also in the operation phase for any additional habitat loss.

**OW** - I am assuming that is not accounting for O&M that takes placed under a separate marine licence. Is that right?

**ZT** - I would have to clarify on the senior case manager, but I believe it would be for what is covered under the DCO.

#### AOB:

**PP**: Fo \_\_\_\_\_\_ if we were to provide the comments for PEIR, would you have time to respond to those prior to submission?

**LB**: It all depends on having an engagement plan and knowing when they come in and if we have time to review them. The answer is Yes, with the caveat that we would need to know with the monthly meetings that we have with yourselves.

Challenging to do these calls without the documents, especially when it regards the results/outcomes. We might be able to look at it, but we would probably end up with more questions than agreement.

**PP**: Understand that. In an ideal world we would want to send you a draft chapter, but would you have time to review that? Probably not. That would be the best option as you could see how we got the answer and what the result was etc.

OW



	Difficult to achieve, so the question is seeing what we intend to do be better? To-day we presented the key information we pulled out. We will take that away and think about to present it in a useful way to benefit your time.  EJ: Draft findings sent through before the meeting so we can review them.  CC: Yes, we are programming that to make sure that goes out on time.	
Action ID	Action	Owner
1	Fugro figures to be amended to use final array area boundaries and clearer colour choices.	CC
2	Action - MMO/Cefas to provide written response to herring and sandeel queries.	MMO/Cefas
3	MarineSpace to pull together a note to issue to ETG on underwater noise comments.	LD

Appended Documents – presentation slides



DBS Offshore Wind Farms Noise Expert Topic Group					
	D	ocument Num	ber: PC2340-RHD-ON-ZZ-	-MI-Z-0047	
Mee	eting with:		Noise Expert Topic	Group (ERYC)	
Lo	Location:		Online - Microsoft Teams		
Start Tir	Start Time of Meeting: 11:30 Date of Meeting: 21st September 2		2023		
Attendees		Initials	Role & Organisation		
		LT	RWE – Onsh	nore Consents Manager	
		AB	RWE - Onshore Consents Lead		
		JS	East Riding of York	shire Council - Principal C	)fficer
		SV	SV Acoust	ics – Noise consultant	
		OC	RHDHV - Projec	ct Manager / Onshore Led	ad
		VP	RHDHV	– Onshore Support	
	ng Agenda/ jective(s):	- Noise - Noise - Noise	mary and background e assessment methodology e assessment criteria – cons e assessment methodology e assessment criteria – oper	truction - operational	
Item		D	escription/ Discussion		Presenter
	Welcome and Introduction		LT		
	All attendees introduced themselves and their role in relation to the projects. An overview of the agenda and objectives of the meeting was provided.				
	scheme element on shore export An update on the details on the significant restructure results. The Scoping Optoccurred in Septoutlined, as presults as a presult of the statutory Consults. An update on Septocations being Recapped on presults.	project site and ots: wind turbine cables and ons the DBS offshore te selection projection was receiptember and Octoberted in slide Station on the Frection 42 feedby refined and presented in programme of D	PEIR ran 6 <sup>th</sup> June to 17 <sup>th</sup> July back is being addressed, rou	e export cables, landfall, eck. was provided, including y of the likely roductory consultation name dates were //. tes and substation	LT
	The baseline for	Noise chapter	was presented.		SV



Construction:	
Vibration – has been scoped out construction vibrations are very localised and as receptors are not near the site. One potentially significant noise effect but that may not be an issue as the option might fall off during optioneering. Additional mitigation would be reviewed should that option get taken forward.	SV
Heavy goods vehicles - increase in traffic noise - One potential residual effect:-	
Low flow roads - DMRB should not be used for low flow roads, Combination of change and absolute levels can be taken into consideration. This option may drop out due to design refinements.	
<b>Criteria</b> : SOAEL - 75dB daytime, 65dB at night and LOAEL values are 10dB below the daytime values.	SV
<b>Response on Criteria</b> : JS confirmed the criteria seem reasonable. Is aware of the hamlet with 'low flow' road.	JS
<b>JS</b> asked if this will be highlighted in the ES?	
<b>SV</b> confirmed this will be in advance of the ES.	
<b>Operational Noise</b> : acceptance of lower cut-off night time of 40dB/55dB LOAEL/SOAEL.	SV
Criteria: Night-time noise – WHO night noise guidance, LOAEL	
Response on Criteria: JS confirmed that was acceptable.	
<b>JS:</b> In general, that's fine. Needs a couple of days to read Chapter 25 information submitted and all documentation with regards to Noise and DCO.	JS
Questions and Answers:	
<b>JS</b> asked if there was anything required from ERYC in writing.	
<b>SV</b> suggested that <b>JS</b> could respond if they happy once the presentation is delivered.	
LT: Unusual that no responses were received from ERYC on Section 42 Consultation. Key contact Matthew Sunman, who had reassured that normally ERYC would not respond to Section 42, has now left ERYC. In absence of written response on topic specific issues it would be good to get a confirmation from ERYC that this is the formal stance. Currently unsure of who to contact in ERYC as Case Officer.	
<b>JS</b> : will speak with James and will confirm who our contact / Case Officer would be.	
AOB/Summary and Next Steps	
JS asked about clarifying re: ETG he is invited to in November by Sam Sinclair.  VP explained the November ETG for Human Impacts called by Sam is for Dogger	SV
Bank D and this for a different project similar name - Dogger Bank South - essentially 2 different projects.	
<b>JS</b> asked if the presentation can be sent over.	
<b>SV</b> confirmed that presentation will be sent over shortly.	
	<u> </u>



	Onshore Noise and Air Quality ETG				
	<b>Document Number:</b> 004994847-01				
M	leeting with:		Onshore Noise and Air Quality ETG		
	Location:		Online – M	icrosoft Teams	
Start	Time of Meeting:	2pm	<b>Date of Meeting:</b> 27 <sup>th</sup> November 2023		
	Attendees	Initials	Ro	ole & Organisation	
		JS		vironmental control)   Eas Yorkshire Council	t Riding of
		SM	Principal To	wn Planner   Hull City Cour	ncil
		ML	EIA (Noise	) consultant   SV Acoustic	S
		SV	Noise Lea	d consultant   SV Acoustic	.S
		DW	Air Qualit	y Officer   Hull City Counci	
		LT	Onshore	Consents Manager   RWE	
		RH	Project Director and	Onshore Lead EIA consult HaskoningDHV	tant   Royal
		SM	Air Quality Lead	consultant   Royal Haskon	ingDHV
		AG	Principal Officer (en	vironmental health)   Hull (	City Council
	Apologies	Initials Role & Organisation			
		JT	Principal Office	er (Environmental Control)	ERYC
Meeting A	genda/ Objective(s):		<ul> <li>Welcome and Intro</li> <li>Project Update</li> <li>Noise &amp; Vibration:</li> <li>Noise &amp; Vibration:</li> <li>Air quality: Introdu</li> <li>Air quality: PEIR Re</li> <li>Air quality: ES Upd</li> <li>Noise &amp; Air quality:</li> <li>AOB</li> </ul>	Introduction ES Update ction esponses	5
Item Description/ Discussion		Presenter			
1	Welcome and Introdu RH welcomed the atte	luctions RH tendees and invited each of them to introduce themselves.		RH	
2	Project Overview  LT gave other attendees an overview of the project. Due to the familiarity of the attendees with the project the overview was focused on updates regarding the PEIR and Section 42 consultations.  LT made attendees aware that the subject of the meeting would be related to the		LT		
	onshore infrastructur	<u>e. Attende</u> es	s were shown a plan with	n the frozen design of	



the onshore cable corridor from the landfall point near Skipsea to the national Grid Birkhill Wood Substation.

#### Onshore aspects

Attendees were made aware by LT, that the design will use High Voltage Direct Current cable in the corridor. This change allowed the corridor footprint to become narrower at a width of 75m and a width of 90m for complex crossing.

#### Substation site

LT gave attendees on updates to the substation site design, specifically, that after the Section 42 consultation it was decided there would be two co-located HVDC substations (maximum building height of 24m) on Zone 4 (north of Bentley village).

## Status of applications and associated documents

LT outlined the current status of the PEIR consultation. Based on feedback from the consultation, design of the cable corridor route was frozen for the purposes of ES and DCO submission. ES chapter drafting is in progress.

## Indicative programme

LT also specified key dates from the indicative programme. The project is progressing towards the next milestone, preparing the DCO application for submission in May 2024. Examination is expected to be completed in 18 months, resulting in a decision by approximately November 2025. Based on these predicated dates, construction may be able to start in 2026 with a view to becoming operational in 2029.

# Key decisions

LT described the key decisions that had been made prior to the design freeze, which included landfall site selection, using HVDC technology, converter station site selection, and commitments minimise impacts such as sharing haul roads and other temporary infrastructure between DBS East and DBS West.

# Cable Routing

LT showed attendees the changes to the cable corridor route. This included a change around Nunkeeling and Long Riston, due to heritage assets and sand and gravel deposits, respectively.

# Development options

To end the project overview, LT went over the different development scenarios that will be proposed in the DCO application, which included:

- DBS EAST or DBS West is built in-isolation
- DBS EAST and DBS are both built concurrently
- DBS EAST and DBS are both built sequentially



	Based on these scenarios the project construction duration for the onshore component of the develop is projected to be up to 4 years for depending on an in-solation/ concurrent build scenario, and 6 years for a sequential build scenario.  SM queried the status of engagement on the Birkhill Wood substation application. LT stated that she thought they had conducted an informal consultation alongside the planned DCO application for the associated powerlines, with a view to submitting a planning application for the latter half of next year.	
2	Noise & Vibration: Introduction Baseline Noise Monitoring SV informed attendees that due to site selection becoming fixed to zone 4 for the substations they intend to only provide baseline data for the relevant site. This approach was confirmed by JS and being appropriate.  Construction noise and vibration	SV
	SV went on to inform attendees that due to the site selection there would be no construction noise and vibration impacts in Hull City Council's administrative area, as well as stating that the methodology and criteria used in the assessment and been previously agreed with JT.	
	SV showed attendees an overview of the methodology, assumptions and impacts based on different scenarios. Highlighting the low SOAELs 75 dB during the day, 55 dB at night and LOAELs of 45 dB, and the potential for one significant impact (based on PEIR results) caused by the HDD drilling at night. SV went on to state the assessment is ongoing.	
	SM queried if construction traffic noise is being considered for Hull City Council's administrative area despite the relevant sites not being located there. SV confirmed that this being considered.	
	Construction Road Traffic Noise SV informed attendees of the assessment approach taken for construction road traffic noise. SV reminded attendees that this information was previously released and is unchanged. Attention was brought to a potential significant effect in East Riding of Yorkshire Council's administrative area, which is the result of road flows of Eske Lane being too low to apply DMRB methodology. SV proposed a solution in which the road in question would be modelled as haul road.	
	JS confirmed the approach was appropriate but request further information by email. GS also confirmed that the approach was appropriate.	
	Operational noise SV presented information on operational noise assessment criteria to attendees and initial findings of no significant effects. The large distances between the substations and receptors was highlighted as a key mitigation factor but the intend to design in further mitigation if required was stated.	



	JT confirmed that the approach being taken was appropriate.	
	Cumulative effects  SV displayed a large list of projects in the area but stated that they are generally taking place at significant distances from the proposed site from a noise perspective. Attendees were informed that the cumulative effects assessment was ongoing. SV pointed out that a solar farm was close enough to be scoped into operational and construction cumulative noise assessments, but any potential adverse noise effects could be mitigated.	
	SM wanted to make attendees aware that a large number of Nationally Significant Infrastructure Project applications had been submitted for the area, and that the list displayed should be updated to reflect this. In light of this SM wants to the assessment to consider the traffic noise impacts on Hull City Council's administrative area.	
	LT added that the transport consultant had previously agreed the list of projects in the cumulative assessment with both Local Authorities. In correspondence with the assigned planning officer (James Chatfield), it was agreed that a long list of projects will be compiled and considered.	
3	Air quality: PEIR Responses	SM
	SM introduced the air quality assessment and that the methodology was agreed during PEIR with DW and Jonathan Tait (not in attendance). SM made attendees aware that the PEIR responses did not necessitate any changes to the methodology.	Jivi
	SM stated that she would like to go over the comments arising from the PEIR with the attending representatives of the Local Authorities.	
	Hull City Council (Construction traffic road emissions)	
	SM stated that it was agreed with Hull City Council that assessments of junction would not be considered at the ES stage due difficulties in obtaining baseline data for Castle Street. Junctions would be considered in the post-consent stage instead.	
	DW confirmed that this approach was considered appropriate.	
	SM informed attendees of a second comment from Hull City Council regarding verification factors. Due to the lack of available data (only one years worth) SM proposes the use of the NOx verification factor for $PM_{2.5}$ and $PM_{10}$ for the assessment.	
	DW confirmed that this approach was considered appropriate.	



model noise resulting from road flows on Eske Lane to JS by [11 December 2023].	
Royal HaskoningDHV to provide further information regarding criteria used to	SV
Royal HaskoningDHV to produce meeting minutes and distribute to attendees prior to next meeting [11 December 2023].	RH
	Owner
None.	RH
AOR	DН
SM queried if he could receive draft ES chapters ahead of the ETG. LT and RH commented that this could be attempted but may not be possible. RH went further to state that the information from the assessment could be delivered in a presentation.	
SM queried if the submit agreement/ disagreement logs would be bottomed out in time for the proposed ETG. LT stated that drafts would be made available for	
LT made attendees aware of the intent to submit agreement/ disagreement logs with the DCO application and to hold another ETG in January or February.	
LT gave a brief summary how the projected is expected to progress for the next few months. ES chapters are to be drated between August and December 2023. Chapter finalisation and DCO application submission is to take place over the course of January to May 2024.	
Summary and Forward Programme.	LT
Cumulative effects assessment SM informed attendees of the projects being considered in the ongoing cumulative effects assessment and pointed out that they would be the same as those in the noise assessment. SM added that once the long list is finalised, that too would be incorporated into the assessment, but focussed on projects within 500m.	
SM brought attention to the only change since the methodology was designed was the introduction of new construction dust guidance.	
DW confirmed that this approach was considered appropriate.	
Assessment Methodology SM asked in attending Local Authority representatives could confirm that the assessment methodology that was agreed at PEIR stage could be used for the ES.	
	SM asked in attending Local Authority representatives could confirm that the assessment methodology that was agreed at PEIR stage could be used for the ES.  DW confirmed that this approach was considered appropriate.  SM brought attention to the only change since the methodology was designed was the introduction of new construction dust guidance.  Cumulative effects assessment  SM informed attendees of the projects being considered in the ongoing cumulative effects assessment and pointed out that they would be the same as those in the noise assessment. SM added that once the long list is finalised, that too would be incorporated into the assessment, but focussed on projects within 500m.  Summary and Forward Programme.  LT gave a brief summary how the projected is expected to progress for the next few months. ES chapters are to be drated between August and December 2023. Chapter finalisation and DCO application submission is to take place over the course of January to May 2024.  LT made attendees aware of the intent to submit agreement/ disagreement logs with the DCO application and to hold another ETG in January or February.  SM queried if the submit agreement/ disagreement logs would be bottomed out in time for the proposed ETG. LT stated that drafts would be made available for comment at the next ETG.  SM queried if he could receive draft ES chapters ahead of the ETG. LT and RH commented that this could be attempted but may not be possible. RH went further to state that the information from the assessment could be delivered in a presentation.  AOB  None.  Action  Royal Haskoning DHV to produce meeting minutes and distribute to attendees prior to next meeting [11 December 2023].



East Riding of Yorkshire Council to provide confirmation or comment on the proposed air quality assessments to Royal HaskoningDHV by [11 December 2023]. (not in attendance)

# **Appended Information – Post Meeting Updates**

Criteria used to model noise resulting from road flows on Eske Lane

Due to high impacts predicted at Eske Lane, the DMRB Operational Noise LOAELs and SOAELs for all receptors has been used as per the following table:

Time Period	LOAEL	SOAEL	
Day (06:00-24:00)	55dB LA10,18hr façade	68dB LA10,18hr façade	
Night (23:00-07:00)	40dB Lnight, outside (free-field)	55dB Lnight, outside (free-field)	

# Transport Cumulative Scheme

See attached spreadsheet "PC2340 - CAL 011 D01 - Onshore Cumulative Projects Longlist"

# National Grid connection.

National Grid are planning on submitting TCPA Planning applications for both Creyke Beck expansion, and the new Birkhill Wood Substation, in Q3 2024.

The National Grid publicly available info:

Creyke Beck extension and new substation | National Grid ET



		Onsilor C II	listoric Environment E i		
		Document l	Number: 004994854-	-01	
M	leeting with:	Onshore Historic Environment ETG			
	Location:	Online - Microsoft Teams			
Start Time of Meeting:		10am	<b>Date of Meeting:</b> 5 <sup>th</sup> December 2023		
	Attendees	Initials	Role & Organisation		
		RN	Principal Archaeologist I Humberside Archaeologica Partnership		eological
		KE	Inspector of Ancient Monuments I Historic England		
		АН	Regional Science Advisor I Historic England		land
		RB	Conservation Officer I East Riding of Yorkshire Council		re Council
		LT	Onshore Consents Manger I RWE Renewables Ltd		oles Ltd
		SP	Operations Manager I AOC Archaeology		
		MJ	Heritage consultant  RHDHV		
		JM	Technical Director, Heritage   RHDHV		
		DG	3		HV
		OC		oject Manager I RHDHV	
Apologies		Initials	Role & Organisation		
None					
Meeting Agenda/ Objective(s):		<ul> <li>Project Overview</li> <li>S42 Consultation responses and feedback</li> <li>Feedback on ES progress</li> <li>Programme for ES chapter drafting and further ETG</li> <li>To achieve agreements for Agreement Log</li> </ul>			her ETG
Item		Desc	ription/ Discussion		Presenter
1	Welcome and Introduction All attendees introduced themselves and their role in relation to the projects. An overview of the agenda and objectives of the meeting was provided.  OC/LT				OC/LT
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		1
	Archaeology and Cultural Heritage Introduction  MJ recapped over the PEIR feedback, and that the extent of geophysical survey coverage, and desk-based information was available to make sure that adequate coverage of the refined ES onshore development area was achieved. As of November, approximately 900ha has been covered by geophysics survey, representing 70% of the ES onshore development area coverage. Walkover and settings surveys had also been undertaken to support the assessment work.	MJ
3	PEIR Responses MJ ran through a summary of the PEIR consultation responses starting with HE comments. HE comment on outreach and engagement: it was suggested a Heritage and Archaeology page is developed on the project's website, and a newsletter would be useful to explain trial trenching progress. Most of the archaeological finds have been in the south and around the converter station zone. LT added that RWE have started conversations with AOC about putting together a program of newsletters, potentially school visits, and local talks which would kick off from spring 2024, potentially considering the amount of interest around the landfall area. HE comment on Project Description: this had been covered in part by LT's project overview and will be covered in the ES. MJ referred to consulting CITIZAN datasets and agreed the team is using relevant CITIZAN data to support the assessment. MJ requested whether there were any comments on the HE consultation responses provided. AH had no further comment. KE wanted to review more detailed responses than the summary presented before commenting. KE queried the rationale for the site area refinements and why Zone 4 was chosen over Zone 1 for the converter station. LT explained that a review of the substations being co-located in zone 4 against one each in in zones 4 and 1 favoured the co-located option, taking into account environmental, land and engineering constraints. MJ referred to the HAP comment on technical reporting and illustrations. There is a plan to set up a heritage GIS viewer to show desk-based, geophysics and trial trenching data, which will be reflected in the ES chapter and appendices. MJ referred to the HAP comment on geophysical coverage. Issues have arisen over site access due to crop harvesting and poor weather that has caused challenges for both geophysics and trial trenching. MJ referred to the HAP comment on regional research objectives. Previous meetings with HAP have provided updates on trial trenching. The WSI including research objectives has been	MJ
4	Refined Environmental Statement Baseline  MJ recapped over the refinements at Nunkeeling made to avoid the known extensive archaeology in the area, as well as at Long Riston. Nine out of eighteen areas of high archaeological potential surveyed in the geophysical survey had	MJ



been partially or completely avoided as a result of ES route refinements. The site boundary refinements around the converter station zone included avoiding a Romano-British ladder settlement in the south of substation zone. The geoarchaeological desk-based assessment considers a 500m radius study area on the PEIR boundary and as such has been considered to have suitable coverage of route alterations. Additional settings assessment and walkover survey of the converter station zone has been undertaken. New areas outside of the PEIR boundary were also covered by walkover survey.

The updated geophysical survey WSI focuses on the refined ES onshore development area. Additional archaeological desk-based work assessment supported by aerial photography and LiDAR information sources has been carried out for any areas that fell outside of the previous PEIR boundary.

MJ asked if the ETG was in agreement with the baseline scope in light of the route refinements. AH agreed the Geoarchaeological desk-based assessment study area was appropriate.

Key Issues: Trial Trenching and Mitigation Strategies

MJ highlighted there will be an interim report of the evaluation at landfall and substation which will be submitted to support the ES. The final report, including archaeological finds at landfall, will be submitted post application and through to acceptance. Any issues dealt with during the statement of common ground process. Following completion of the trial trenching there will be further consultation to agree suitable mitigation requirements.

MJ explained that trial trenching work was largely complete in the landfall zone and where the proposed converter stations and temporary construction compounds would be located.

SP provided further explanation that pottery finds in trenches that cross a double trackway indicated presence of a settlement nearby and possibly to the south of the trackway. Further along the trackway the pottery finds diminish. SP suggested that through the geophysics results the work has traced the ditches going forward into trenches 8 and 9 and work on trench 33 indicated evidence of the trackway potentially continuing. Although the geophysical responses diminished, it may be due to a change in geology. Overall, the results indicate very clear evidence of intensive Iron Age / Roman activity.

Further north in the area around green box (ETG presentation slide 33) around the temporary construction compound area is a low activity area. North of this more linear features, isolated pit features, and ponds or infilled depressions are prevalent. The finds were however less well dated. The northern quarter of the western field has revealed highly significant medieval archaeology, including intercutting boundary ditches and plots with medieval pottery in infilled areas, possibly associated with the settlement of Cleeton. Four or five trenches further north appear to show less intensive activity. The central portion of the site and the area in grey (slide 33) indicated an area of low archaeological activity, with a few pits, linear features and blank trenches. In the southwestern corner of the substation zone less is known although the number of features declined significantly compared with the medieval settlement to the north.

RN commented that he had reviewed the history of the local vicinity and that the historic environment record, ordnance survey data and a 19<sup>th</sup> century historian George Poulson) had misinterpreted that much of Cleeton had been eroded by the sea but was not correct. The site being excavated is the East End Garths,

SP



incorporating enclosures laid out in the  $19^{th}$  century. In the Victorian County history this is interpreted as the eastern end of Skipsea but is not and that it was the eastern end of Cleeton. Cleeton is marked on  $19^{th}$  century maps so not a great discovery. RN believed there were medieval documents which would indicate that it was the bondman settlement of the manor of Cleeton. It remains partly built over by Skipsea, because Skipsea expanded as Cleeton shrank. Cleeton was therefore a medieval settlement dating from between the 11th century to the late  $13^{th}$  and considered important.

LT explained that a landfall contractor has been engaged and that it was regarded as an important archaeological site which would be worked around during micrositing of the design to minimise impacts as much as possible. This would be considered during further trial trenching. JB concurred that the information from RN was useful and would help inform understanding of the landfall area. Given the variation in archaeological sensitivity careful routeing of the design at later stages could suitably mitigate impacts.

RN commented that moving the TCC represented by the orange box on the plan further west into a less sensitive area would be welcomed, given also that the area suffers from saturated ground conditions.

MJ explained the change to the red line boundary around the vicinity of the anti-

# 5 Key Issues – Settings

aircraft gun site of the Scheduled Monument to allow for planting and screening to the north of the converter station zone. Planting to support visual screening of the converter station from the view from the SM is being considered. Planting would be in the area of the field where some potential exists for remains associated with former military uses but that currently the remains appeared ephemeral but subject to geophysical survey. MJ pointed out the importance of the SM in terms of setting with respect to its location and value to the local area. MJ suggested the local road network and caravan park nearby slightly detracted from the general agricultural land use in the area and therefore the setting, in addition to the low level of above ground features associated with the SM. A montage view of the converter station, without additional planting, from the SM was presented. MJ noted that the SM designation did not extend to the proposed area of planting for visual screening purposes but that it could create a potential impact on any archaeological remains there. KE responded that he would need more time to consider this given it was the first time he had seen the viewpoint montage. KE noted that screening effects were quite temporary, and this aspect needed more thought. RN commented that he visited Butts Farm caravan site frequently and that it was a very well used facility and enjoyed by many visitors to the area. RN considered this area to be a challenging one in terms of public feedback, given the flat nature of the site and its visibility. RN stated that it was very quiet and the converter station would change the character and nature of the area, and that the

KE emphasised the importance of the setting impact and that there should be importance placed on the experiential aspects of the SM site impacts, not just views impacts and screening. LT thanked KE for the feedback on this and that it was being considered across several EIA topics.

likely time taken for planting to mature would limit its value. KE agreed that is was a popular tourist destination. JM mentioned that socioeconomic assessment and other ES Chapters would consider the impact on the caravan park at Butt Farm.

MJ



	area being one of the most bombed areas outside of London, and that in the local popular imagination the site was locally important.  LT responded by saying that further work was underway on settings mitigation and how it would affect the montage view. OC noted that the landscape proposals would be reviewed in the round. KE responded that they should be considered in the round, and that the context of other World War II-related structures in the area, such as the Picture House on Beverley Road and the decoy docks should be considered.  A montage view from Beverley Minster tower was presented showing a wider panoramic viewpoint. RB commented that the significance of heritage impact, viewpoint and settings experience, and what contribution is made from the development needs to be covered. RB didn't want to comment further and consider outside of the meeting but mentioned that the assessment of impacts	MJ
	should be clearly justifying the rationale for the impact levels that will be reported in the ES. MJ agreed that they would be doing so in the ES.	
6	Questions to Stakeholders  MJ asked whether there were any comments on the buried and above ground heritage assets not previously discussed.  RB commented that need to be clear about impacts during construction and operation, transport and vehicle issues, large lorries going through historic villages. LT responded that traffic and transport routes had been considered and agreed with transport colleagues, taking into account the limitations presented by smaller roads in the local road network. The A1079 was referred to as one of the proposed accesses. RB referred to a Kent scheme which had had issues with local construction traffic near heritage buildings to emphasise the need to consider such issues.  MJ requested whether the ETG agreed with the approach to the updated assessment for the areas of the onshore development boundary that are outside the previous PEIR development boundary limits. LT added that the WSI for geophysics was in development and had been agreed with RN and checked that this was agreed from RN's point of view. RN agreed it had been.	MJ
7	Next steps  MJ referred to the spatial overlap with cumulative schemes and showed the list of schemes. RN asked that, given the Hornsea 4 project was included in the cumulative schemes list, if the Peterhead to Drax/ England to Scotland green link scheme was going to be included. MJ confirmed that it was being considered as part of the cumulative impact assessment. LT confirmed a long list of schemes was being considered and agreed with East Riding of Yorkshire Council. OC noted if	MJ



	there were any particular schemes that should be considered then any further comments would be useful.	
	Next steps LT summarised the ES chapter drafting timescales and another ETG planned for early 2024. Statements of Common Ground, first step being an Agreement/Disagreement Log, and looking to send for Agreement, and intended to be an appendix to the ES. OC noted if there were further comments from stakeholders. All stakeholders had no further comments. RN commented that he could pass on his report on Cleeton for information.  OC thanked all attendees and concluded the meeting.	LT
Action ID	Action	Owner
1	Stakeholders to provide commentary on PEIR consultation responses other than those raised at the meeting, prior to the next ETG in order to address them in the ES Chapter.	KE
2	Receive response to Agreement Log from all ETG stakeholders	All

**Appended Documents** 



	Onshore Flood Risk and Geology ETG					
		Doc	ument Number: 00499	94849-01		
M	leeting with:	Onshore Flood Risk and Geology ETG				
	Location:	Online - Microsoft Teams				
Start	Time of Meeting:	2pm <b>Date of Meeting:</b> 7 <sup>th</sup> December 2023		023		
Attendees		Initials	Role & Organisation			
		RT Onshore Consents Manager I RWE		nts Manager I RWE Renev	newables	
		OC	EIA Project Manager I RHDHV			
		HW	Flood Risk 8	& Hydrology Lead I RHDH	V	
		SF	Flood Risk & Hydrology Consultant I RHDHV			
		KD	Geology and Land Quality Consultant I RHDHV			
		СМ	Geology and Land Quality Lead I RHDHV			
		AH	Engineering Director I Wardell Armstrong			
		JC	Engineering Advisor I Beverley and North Holderness Internal Drainage Board (IDB)			
		EJ	Marine Senior	Advisor I Natural England	(NE)	
		ВТ	Senior Geodiversity Specialist I Natural England (NE)			
		NW	Lead Advisor I Natural England (NE)			
		LS		isor I Natural England (NE	<u>:</u> )	
	Apologies	Initials Role & Organisation				
	MK Assistant Principal Engineer - Flood & Coastal Risk Management I Local Lead Flood Authority, East Riding Yorkshire Council					
Project design update since PEIR stage     DCO and Programme     S42 Consultation responses     Update on EIA approach and Environmental Statement progress     AOB			ent			
Item		Desc	ription/ Discussion		Presenter	
1	Welcome and Introduction  All attendees introduced themselves and their role in relation to the projects. An overview of the agenda and objectives of the meeting was provided.			OC/RT		
2	RT gave other attendees an overview of the project. Due to the familiarity of the attendees with the project the overview was focused on updates regarding the PEIR and Section 42 consultations.  RT made attendees aware that the subject of the meeting would be related to the onshore infrastructure. Attendees were shown a plan with the frozen design of the onshore cable corridor from the landfall point near Skipsea to the National Grid Birkhill Wood Substation.				RT	



#### Onshore aspects

Attendees were made aware by RT, that the design will use High Voltage Direct Current cable in the corridor. This change allowed the corridor footprint to become narrower at a width of 75m and a width of 90m for complex crossing.

#### Substation site

RT gave attendees an update to the substation site design, specifically, that after the Section 42 consultation it was decided there would be two co-located HVDC substations (maximum building height of 24m) on Zone 4 (north of Bentley village).

# Status of applications and associated documents

RT outlined the current status of the PEIR consultation. Based on feedback from the consultation, design of the cable corridor route was frozen for the purposes of ES and DCO submission. ES chapter drafting is in progress.

# Indicative programme

RT also specified key dates from the indicative programme. The project is progressing towards the next milestone, preparing the DCO application for submission in May 2024. Examination is expected to be completed in 18 months, resulting in a decision by approximately November 2025. Based on these predicted dates, construction may be able to start in 2026 with a view to becoming operational in 2029.

# Key decisions

RT described the key decisions that had been made prior to the design freeze, which included landfall site selection, using HVDC technology, converter station site selection, and commitments minimise impacts such as sharing haul roads and other temporary infrastructure between DBS East and DBS West.

# Cable Routing

RT showed attendees the changes to the cable corridor route. This included a change around Nunkeeling and Long Riston, due to heritage assets and sand and gravel deposits, respectively.

# **Development options**

To end the project overview, RT explained the different development scenarios that will be proposed in the DCO application, which included:

- DBS East or DBS West is built in isolation;
- DBS East and DBS West are both built concurrently;
- DBS East and DBS West are both built sequentially.

Based on these scenarios the project construction duration for the onshore component of the develop is projected to be up to 4 years for an in isolation / concurrent build scenario, and 6 years for a sequential build scenario.



	Flood Risk and Hydrology - Introduction  SF presented future aspects to be considered including baseline coverage, Section 42 responses, updated receptors and an update on the flood risk and hydrology ES chapter.	SF
3	PEIR Comments  SF presented responses to S42 consultation including those for the Environment Agency (not present but to be addressed at a later ETG meeting). Responses to Beverley and North Holderness IDB covering water crossings, land drainage, permissions and access were presented. OC prompted for a response from JC to check whether they were acceptable. JC commented that there were areas of saturated ground in the area and cited Dunnington Sewer in terms of using a suitable trenchless technique e.g. horizontal directional drilling to be used where possible for watercourses. AH commented that trenchless options were available for such crossings. RT mentioned that the worst case for the ES assumes open cut trenching but that HDD options exist.  In terms of permissions, RT also mentioned the prospect of the use of the disapplication process (to be captured by Protective Provisions) could be adopted and that discussion with JC separately would be welcome. JC indicated the disapplication process would not be favoured. RT responded by stating that agreements could be made on works within the remit of the IDB and was keen to discuss further. JC agreed that was possible.	SF
4	Updates following route refinements – Flood Risk and Hydrology  SF explained the refined ES baseline with respect to surface water drainage (Main Rivers) and surface water drainage for IDB drains and other Ordinary Watercourse crossings, as well as the Hydrology and Flood Risk Study Area in terms of surface water and groundwater body catchments as shown on the presentation slides. RT reminded stakeholders for potential agreements on baseline coverage and other aspects. Refinements to the Flood Zones and surface water flood risk areas affected were covered. No comments from stakeholders were raised.	SF
5	Update on Assessments  Construction effects from 4 impact areas were presented and SF concluded that there would be no significant effects with respect to Flood Risk and Hydrology.  Impact 1 – disturbance of water bodies was highlighted. JC queried whether there were really 27 crossings, including riparian ones. SF confirmed the number was correct. HF suggested a list was provided for IDB comment. Mitigation measures for key Impact 1 receptors was explained by SF. Main River crossings were explained confirming no trenched crossings would be used.  Impact 2 – sediment supply effects and proposed mitigation measures were explained including works in either Flood Zone 2 or Flood Zone 3, particularly in terms of stockpile siting to avoid surface water flows paths. JC queried the type of haul roads that would be used and how they would be mitigated for. RT responded that works in Flood Zone 2 and 3 will require haul roads. JC emphasised the need to consider haul road depth and substrate type to limit the need to top up the haul road levels due to aggregate materials without fines being used. AH mentioned that suitable haul road types including geogrids and/or geotextile membranes can be used to limit such effects. RT agreed that would be taken away for further consideration.  Impact 3 accidental spills and leaks and Impact 4 changes to groundwater and surface water flows and flood risk potential effects in operation were summarised	SF



as being insignificant. JC mentioned the need to consider groundwater issues and dewatering measures. SF confirmed that measures would be put in place to control drainage. JC stated that a permit would be needed from the IDB in cases where IDB controlled drains could be affected and high groundwater levels could be expected.

SF confirmed decommissioning effects would be no worse than construction.

JC queried if existing land drains were being assessed where crossings were affected as some may need reconfiguring. RT responded that an Outline Drainage Strategy was being prepared and that feedback would be welcomed on the construction measures and a contractor is in place undertaking surveys on the ground to consider drainage mitigation. AH confirmed that pre-construction drainage works would be done as part of enabling works for the main construction contractor. AH suggested a land drainage consultant would be used. RT requested feedback on Land Drainage Consultants (LDC) Ltd if JC had any advice from previous experience.

## Water Environment Regulations Compliance Assessment

SF queried whether there was agreement on Barmston Sea Drain but only in the area of the emergency access road. Middle Humber transitional water body was not included in the scope due to distance away. JC queried which water body it was. SF explained the Humber estuary is split into two water bodies (Humber Middle and Humber Lower) adjacent to Hull. SF added that the Humber Middle will be added to the screening assessment.

SF concluded that with mitigation measures there would be no significant environmental effects and compliant with the WER.

## Cumulative Assessment

SF explained the schemes chosen in the cumulative assessment were refined down to 12 from a longer list of schemes based on their potential relevance to the cumulative effects assessment. Given their own control measures required for each project, no significant effects would be required. JC queried whether Pear Tree Farm (320MW scheme) was included as it had come online recently and potential interactions with cable routes should be considered. RT suggested it was a solar farm recently acquired by RWE under a different name but would confirm [Post Meeting Note: The Pear Tree Hill Solar Farm Project is an RWE Project being developed by JBM Solar and will be included in the cumulative Impact assessment in the ESI.

## Update on FRA

SF summarised the FRA scope including relevant policy and guidance and that it would be supported by an Outline Drainage Strategy. No further modelling beyond the Outline Drainage Strategy would be undertaken. An Outline Code of Construction Practice would address construction mitigation requirements. RT/OC/HW requested feedback. JC wanted to take information away for comment.

## Outline Drainage Strategy

SF summarised the pre- and post-construction drainage and Surface Water Management Plan, SuDS treatment train and discharge hierarchy.

Surface water drainage for the converter station, accesses and topography was explained. SuDS design parameters to capture worst case were covered. JC



queried the greenfield runoff rates of  $18.7\,l/s$  as he suggested  $1.4\,l/s$  would usually be expected. HW clarified that the  $18.7\,l/s$  figure was likely to be for the whole of the substation footprint area rather than per hectare. RT responded that it should be in line with IDB requirements but will check.

## Summary and Next steps

RT then went over the summary and next steps for the ES chapter drafting and finalisation and reiterated the application would be submitted in May 2024 and that another ETG meeting around February 2024 would be planned for the new year.

## 6 **Geology and Land Quality**

## PEIR Responses:

KD summarised the PEIR comments received from the Environment Agency with respect to private groundwater abstractions and contaminated land assessment for the record.

KD then covered Natural England comments with respect to significance of effect criteria, the Withow Gap SSSI south of landfall being unaffected as a receptor, and soils and agricultural land. RT mentioned that these responses could be further discussed at the Natural England forthcoming ETG meeting if required.

OC requested whether the PEIR responses were acceptable.

EJ responded that NE could not confirm acceptance of the significance criteria until it had been reviewed. EJ commented that it was good to avoid it but requested how far away Withow Gap SSSI was from the landfall area. RT confirmed that it was 380m away to the south [Post Meeting Note: NE have now confirmed they are satisfied the Projects will not have significant effects on Withow Gap SSSI by email correspondence on the 11/01/2024]].

## Geology and Land Use ES Chapter: Introduction

#### KD summarised:

- the updated baseline following refinement of the onshore development area, that Section 42 comments had been taken into account, and that receptors and the assessment of significant likely effects for all stage had been updated.
- the study area buffer zones for contamination and COMAH sites
- refined ES baseline for environmental setting. GI results in the area of the cable corridor adjacent to a historical landfill had indicated that this area of the onshore development area had not been impacted by the historical landfill.
- geology: deposits, mineral extraction, LoGSs to be covered.
- hydrogeology: aquifer designation, groundwater abstractions, SPZs.
- hydrology: surface water features, WFD surface water catchments/bodies, flooding, surface water abstractions, discharges to controlled water.

No adverse comments were made by the ETG on the approach to baseline.

## Update on assessments:

KD summarised:

KD



_	courses list (27) has not missed any.	<b>0</b> 1
Action ID	To issue a list of surface water catchment drains to JC to check the surface water	SF
Action ID	Action	Owner
	Agreement Log questions are specific and detailed. OC confirmed that it would be.  RT requested that stakeholders let RWE know if anyone required the S42 responses and Outline Drainage Strategy for comment.  OC closed the meeting.	
	significant effects on Withow Gap SSSI by email correspondence on the 11/01/2024].  EJ commented that the ecology S42 comments would be picked up at the next ETG with NE but that they were happy with the emergency access to the intertidal zone. EJ requested the trenching technique at landfall. RT confirmed that given no intertidal and nearshore (subtidal) geotechnical GI had been completed yet, some flexibility was needed on using long HDD, or shorter HDD and use of cofferdams in the intertidal zone but that the latter technique was assumed for now to capture a worst case assessment. RT confirmed that construction materials to the intertidal zone, if access required would be transported by barge rather than by road.  RT mentioned that an Agreement Log would be issued to stakeholders in due course to capture agreements on the scopes discussed with the ETG and requested that they provide input, which would then form input to the Statement of Common Ground. OC presented an example of the Agreement Log and mentioned it would be revisited at the next ETG in 2024. EJ requested that the	
	RT requested whether the S42 written responses to NE and IDB were acceptable. BT responded that NE was broadly happy including with the northern landfall location being chosen to avoid Withow SSSI but needed to check responses [Post Meeting Note: NE have now confirmed they are satisfied the Projects will not have	
7	Next steps  OC summarised the forward programme of ES Chapter drafting taking into account PEIR comments and ETG feedback.	OC/RT
	Cumulative Effects  KD concluded that the cumulative effects of identified projects with temporal or spatial overlap within 1km of the site would not result in significant effects. No adverse comments were made by the ETG on the approach.	
	Hydrogeological Risk Assessment (HRA)  KD summarised the Stage 1 (high level assessment of potable groundwater abstractions) and Stage 2 (detailed hydrogeological risk assessment of abstractions and SPZs) approach to the assessment. No adverse comments were made by the ETG on the HRA approach.	
	<ul> <li>potential effects during construction from 7 impacts and mitigation measures outlined, resulting in minor adverse (non-significant) effects.</li> <li>potential effects during operation, including sterilisation of future mineral resources at the converter stations site, resulting in minor adverse (non-significant) effects.</li> <li>potential effects during decommissioning, being similar to those for construction.</li> </ul>	



2	Clarify the greenfield runoff rates quoted of 18.7 l/s to JC for the whole converter station area rather than per hectare	АН
3	Issue plan showing Withow Gap SSI to EJ [Post Meeting Note: NE have now confirmed they are satisfied the Projects will not have significant effects on Withow Gap SSSI by email correspondence on the 11/01/2024]].	RT
4	NE to confirm any feedback on S42 responses.	EJ/LW/NS
5	Consider haul road depth and substrate type including geogrids and/or geotextile membranes in the ES.	RT
6	Issue ETG meeting minutes and Agreement Log to stakeholders.	RT



# **Minutes of Meeting**

	Onshore Terrestrial Ecology ETG				
	Document Number: 004994848-01				
Me	eting with:	Ons	nshore Terrestrial Ecology ETG (except Natural England)		
L	<b>Location:</b> Online – Microsoft Teams				
Start Ti	me of Meeting:	10am	Date of Meeting:	11 <sup>th</sup> December 2	023
A	ttendees	Initials	Ro	ole & Organisation	
		AB	Onshore	Consents Manager, RWE	
		OC	EIA Pro	oject Manager, RHDHV	
		TC	Princi	pal Ecologist, RHDHV	
		LG	Lead Ter	restrial Ecologist, RHDHV	
		LS	Consi	ultant Ecologist, ECUS	
		RY	Princ	cipal Ecologist, ECUS	
		JW	Team Leader, I	East Riding of Yorkshire Co	ouncil
		MW	<u> </u>	ecialist, Environment Agen	
		RJ	•	cal Specialist, Environmen	
		CE	Planning Eco	logist, Yorkshire Wildlife Tr	ust
Α	pologies	Initials	Ro	ole & Organisation	
		AD		RSPB	
		KM		olnshire Wildlife Trust	
Meeting Ago	enda/ Objective(s):		<ul> <li>Welcome and Intro</li> <li>Project Update</li> <li>PEIR responses</li> <li>Terrestrial Ecology</li> <li>Environmental Sta</li> <li>Cumulative Impact</li> <li>BNG</li> <li>Summary and Nex</li> <li>AOB</li> </ul>	Baseline Survey Results tement Progress t Assessment	
Item		Desc	cription/ Discussion		Presenter
1		uced themse	elves and their role in re ectives of the meeting w	lation to the projects. An vas provided.	OC/AB
2	Project Overview				AB
	attendees with the p PEIR and Section 42	oroject the o	verview was focused on ons.	e to the familiarity of the updates regarding the	
			the subject of the meet ndees were shown a pla	ng would be related to n with the frozen design	



of the onshore cable corridor from the landfall point near Skipsea to the national Grid Birkhill Wood Substation.

#### Onshore aspects

Attendees were made aware by AB, that the design will use High Voltage Direct Current cable in the corridor. This change allowed the corridor footprint to become narrower at a width of 75m and a width of 90m for complex crossings.

#### Converter station sites

AB gave attendees an update on the converter station site selection, specifically, that after the Section 42 consultation it was decided to co-locate the two HVDC converter stations (maximum building height of 24m) on Zone 4 (north of Bentley village).

## Status of applications and associated documents

AB outlined the current status of the projects. Following feedback received from the PEIR consultation some amendments and refinement to the Red Line Boundary have been made. Design has been frozen incorporating feedback from statutory consultation in October 2023 – targeted consultation commenced 13th November. The project design envelope was frozen in early December 2023 for the purposes of the DCO submission and ES chapter drafting is in progress.

## Indicative programme

AB also specified key dates from the indicative programme. The project is progressing towards the next milestone, preparing the DCO application for submission in May 2024. Examination is expected to be completed in 18 months. A decision is therefore expected by approximately November 2025. Based on these predicated dates, the earliest construction start date would be in 2026, with a view to first operation in 2029.

#### Key decisions

AB described the key decisions that had been made prior to the design freeze, which included landfall site selection, using HVDC technology, converter station site selection, and commitments minimise impacts such as sharing haul roads and other temporary infrastructure between DBS East and DBS West.

## Cable Routing

AB showed attendees the changes to the cable corridor route. This included a change around Nunkeeling and Long Riston, due to heritage assets and sand and gravel deposits, respectively.

#### Development options

To end the project overview, AB explained the different development scenarios that will be proposed in the DCO application, which included:

- DBS East or DBS West is built in isolation:
- DBS East and DBS West are both built concurrently;
- DBS East and DBS West are both built sequentially.

Based on these scenarios the project construction duration for the onshore component of the development is projected to be up to 4 years for depending on an in isolation/ concurrent build scenario, and 6 years for a sequential build scenario.



3	PEIR Responses  LG covered responses in relation to the following stakeholder comments which will be implemented.	LG
	Environment Agency comments and requests:	
	<ul> <li>Completion of ecological surveys (early access issues).</li> <li>Recommended ECoW at the construction stage.</li> <li>Recommended bird surveys during nesting season.</li> <li>Recommended pumps fitted with 2mm diameter mesh for overpumping of watercourses where fish could be present.</li> <li>Recommended management should Invasive or Non-Native Species (INNS) be found on site and implementation of basic biosecurity measures involving plant and equipment brought from elsewhere. LG commented that there had been little evidence of INNS found through surveys.</li> </ul>	
	OC asked to confirm that there had been no PEIR comments from ERYC and Hull City Council. After initial comment from JW that comments had been issued regarding bird surveys in November it was confirmed that there had been none.	
	Yorkshire Wildlife Trust comments;	
	<ul> <li>Expect ecological surveys and walkovers prior to work starting (e.g. badger walkover surveys, etc).</li> <li>Expect experienced ECoW and suggest reducing/minimising working corridor width.</li> <li>Primary concern is impact on nature conservation sites and potential impact upon FLL to protected sites. To be discussed later in the meeting.</li> <li>Clarification on BNG commitment.</li> </ul>	
	CE agreed that the YWT PEIR comment responses were acceptable after a prompt from OC.	
	Lincolnshire Wildlife Trust comments:	
	<ul> <li>Most comments related to Dogger Band SAC (covered by another ETG on 14/12/23 with Natural England).</li> <li>BNG: recommended detailed assessment, production of a biodiversity plan and minimum 10% net gain.</li> </ul>	
	LWT was not present to respond.	
4	Terrestrial Ecology Baseline Survey Results (see presentation for further detail)  LG presented results of baseline surveys with respect to the following:	LG
	<u>Habitat Surveys</u>	
	<ul> <li>Headline figures of total area surveyed and % arable cover, using UKhab v1.1 which was updated in July 2023. (Discussed later in the meeting)</li> <li>Priority habitats by type, highlighting arable field margins and avoidance - by design or using horizontal directional drilling (HDD) during construction - of other types listed in the presentation.</li> <li>28% of hedgerows classified as Important under the Hedgerow Regulations 1997.</li> <li>Confirmed ECoW would be present during site clearance works.</li> </ul>	



#### Priority Habitats challenges

- Lowland fen (in poor condition, part of a larger fen and flooded), to be avoided by HDD, and
- Arable field margins

#### Important Hedgerows

- 26-28% surveyed were considered important.
- Will be avoided by HDD where possible, and where not possible for approximately 1300m of hedges, mitigation including temporary translocation and minimising gaps access will be recommended.

#### Bats

- Higher concentrations of bats around the River Hull.
- Most common species include common pipistrelle, soprano pipistrelle, Muotis sp.
- Main habitats include mature hedgerows, field drains, ditches, River Hull, and woodland edge. but specific construction control methods e.g. appropriate lighting, must be in place.
- Ground Level Tree Assessment: tree numbers and types presented.

#### Badgers

- 50m from route corridor surveyed.
- Most setts avoided except two.

## Riparian Mammals (Otter and Water Vole)

- Some evidence of water vole
- Little evidence of otter other than spraints
- HDD approach during construction will avoid most watercourses.

## **Great Crested Newt**

- Large proportion of 126 ponds surveyed were temporary in nature.
- 11 ponds classed excellent or good using Habitat Suitability Index
- One pond within the site boundary, nine within 250m showed positive eDNA result.
- District Level Licencing preferred route for GCN

OC asked for comment on District Licensing approach and baseline survey coverage. JW commented that the survey coverage was good and was happy that that many habitats are avoided.

#### **Breeding Birds**

- Many species recorded; important species linked to wetlands around River Hull
- Marsh harrier presence near Lowland fen was highlighted.

## **Wintering Birds**

- Higher diversity of species including SPA citation species identified near River Hull and Skipsea beach.
- Typical non-exceptional species assemblages identified elsewhere within the onshore development area.
- ECoW works with specific methodologies recommended.

JW queried the approach to non-exceptional species and how they are categorised. LG responded that thresholds are used to determine population importance at geographical spatial levels.



	JW made the same query for SPA species. LG clarified SPA species were outside the 10km buffer zone of influence so they would not qualify as being within functionally linked land. JW accepted the explanation.  Potentially Functionally Linked Land (FLL)  Only a small area south of the onshore development area falls within 10km of the potentially FLL area, habitat is mainly arable land. No desktop records of species associated with Humber Estuary SPA Overwintering bird surveys identified two bird species associated with the SPA in low numbers on single occasions. No breeding birds associated with the SPA identified. Overall conclusion that this area is not considered to be FLL.  Species scoped out: Lampreys - due to River Hull not being a hotspot and avoided by HDD. Reptiles and amphibians - can be avoided through method statements and ECoW works. Terrestrial Invertebrates - from desktop survey results, low distinctiveness of habitat and temporal nature of disturbance  OC requested agreement on species scoped out, JW confirmed no issues. No adverse comment was made by other stakeholders.	
5	<ul> <li>Questions/Clarifications</li> <li>LG summarised the following:         <ul> <li>Some baseline reports have been issued; AB confirmed they all can be issued for comment.</li> <li>UK Hab V1 used for the whole survey given that the new updated version was released at the end of the survey season.</li> <li>To note: UK Hab v1 classifies all hedgerow as PH whereas UK Hab v2 classifies only species rich hedgerows as PH.</li> <li>Query to ERYC on unavoidable impact on hedgerows. JW queried if impacts are temporary. TC confirmed around 90% of hedgerow impacts would be temporary and reinstated.</li> </ul> </li> <li>JW queried whether there would be loss of veteran or ancient trees. TC and AB responded that forthcoming surveys are due to identify suspect veteran/ancient trees but currently none are known to be permanently lost. JW commented that it seemed that there are good opportunities to avoid or limit losses. LG responded that some hedgerows are gappy at field margins and measures could be taken to improve these through biodiversity net gain enhancements. JW agreed with that approach.</li> </ul> <li>RJ asked if there was there any evidence of mink from water voles surveys. LG confirmed there had been none.</li> <li>LG also confirmed there had also there been little evidence of INNS during surveys. In any event, biosecurity measures would be considered where necessary. RJ agreed the River Hull was unique in its general lack of INNS.</li>	LG
6	Environmental Statement progress  LG reported the following summary:  No change to overall approach since PEIR stage.  Baseline surveys progressed as presented earlier.  Changes to parameters as explained in the Project update.	LG



	<ul> <li>Cumulative effects assessment being undertaken.</li> <li>A Biodiversity Net Gain strategy was in progress.</li> </ul>	
	Cumulative Effects Assessment	
	LG summarised the approach to CEA and referred to some key projects under consideration. JW mentioned that other wind farms to include. OC confirmed there was a longer list currently under consideration in accordance with PINS guidance.	
7	Biodiversity Net Gain	TC
	TC covered the following points in relation to BNG, currently work in progress:	
	<ul> <li>No net loss to be achieved as a minimum, net gain targeted where possible.</li> </ul>	
	<ul> <li>Baseline biodiversity units on site shown but to be refined using narrower cable route corridor.</li> </ul>	
	<ul> <li>Total units and those units retained by HDD (orange bars) presented graphically.</li> </ul>	
	<ul> <li>Statutory Metric used, new revised metric which will be used going forward does not change baseline values but will change creation/ enhancement values.</li> </ul>	
	Lost habitats within cable route will be reinstated post construction.     Estimated 30% loss in BDU/ha when recreating like-for-like post construction (c. 6yrs).	
	MLWS baseline and impacts: Beach (EUNIS littoral mixed sediments and infralittoral fine sand) makes up the Littoral Sand within the Metric. No permanent works in the intertidal area aside from 6 cofferdams comprising c.0.1ha, construction materials for intertidal works to be brought in by barge.	
	HDD proposed for majority of high value habitats. Lowland fen area surveyed. JW commented that avoidance of the habitat would be preferable. OC queried whether JW would have a different view if the Lowland fen habitat turned out to be in poor condition. JW confirmed it would not make a difference and had the opportunity of enhancement.	
	<ul> <li>Exploring options for on-site and off-site delivery:         <ul> <li>There are limitations over land use following reinstatement works post-construction. Work underway with landscape team to develop deciduous woodland and species-rich grassland, scrub, possible orchard.</li> </ul> </li> </ul>	
	<ul> <li>Biodiversity impacts on-site will mean net loss so off-site BNG is being explored. TC asked if the ETG knew of any enhancement schemes that could be supported. JW responded discussions could be had offline as there are schemes available. JW is working with</li> </ul>	
	data protection team to allow cross-party discussions on enhancement schemes. Further update could be provided early in 2024.	
	<ul> <li>LG asked how liaison with landowners (of enhancement schemes) was going. JW responded that landowner attitudes were mixed, difficulties with high grade agricultural land not being suitable for BNG. Only one habitat bank in currently progress, but JW anticipates challenges with land availability for off-site provision in the area generally.</li> </ul>	



8	<ul> <li>LG asked how the situation with farmers was with 30 year commitments to land management and potential issues with maintenance. JW responded that \$1.06 contributions were used in some cases. Monitoring burdens was one of the biggest concerns from ERYC's perspective.</li> <li>Next steps:         <ul> <li>Further ES Chapter and appendices drafting toward the May 2024 DCO submission taking into account stakeholder feedback and issues raised in the ETGs.</li> <li>Follow-up ETG in February 2024 to track progress on issues raised since this ETG and provide an update on ES progress, mitigation and BNG aspects.</li> <li>Issue ETG meeting minutes for comment/agreement.</li> <li>Agreement Log will be updated and issued to gain agreement with the ETG on points raised in this and any future ETG.</li> </ul> </li> <li>AOB</li> <li>JW mentioned again that the Lowland fen could provide a source of nature recovery and that further investigation of the site would be welcomed, in addition to considering other areas in the wider valley area including water bodies. LG responded that this will be explored further with RWE.</li> <li>OC prompted stakeholders other than ERYC in the ETG for general feedback.</li> <li>TC asked the ETG whether stakeholders had any experience of 'gully-stuffing' as an enhancement measure being delivered in the County. JW responded that in the early 2000s there had been a re-wetting lowland fen project in the Pickering catchment that had been successful in slowing flows off-site. The EA would know more. OC asked if MW knew of the scheme. MW confirmed it had reportedly been successful and that RJ (who had to leave the call) would know more. JW commented that flooding in 2007 held water in places that had not previously, but there were community and educational projects in place that had helped address the problem. Hence the lowland fen site that cannot be used for agriculture had potential for enhancements.<th>OC/TC/LG</th></li></ul>	OC/TC/LG
Action ID	Action	Owner
1	Further discussion on enhancement schemes with ERYC and any other	TC
	interested stakeholders (post-meeting note: separate meeting held with ERYC (JW) on 12/01/24)	



		Onshore Flo	ood Risk and Geology E	TG		
		Document I	Number: 004994850-	-01		
M	eeting with:		Onshore Flood R	Onshore Flood Risk and Geology ETG		
	Location:		Online – M	Online - Microsoft Teams		
Start 1	Time of Meeting:	2pm	Date of Meeting:	13 <sup>th</sup> December 2	2023	
1	Attendees	Initials	Ro	ole & Organisation		
		SB	Graduate Envi	ronmental Consultant, RI	HDHV	
		OC	EIA Pro	oject Manager, RHDHV		
		MW	Appliance Sp	ecialist, Environment Age	ency	
		DP	Flood and Coastal	Risk and flood adviser, En Agency	vironment	
		EC	Ground water and co	ontaminated land team, E Agency	invironment	
		CS	Senior Civil I	Engineer, Wardell Armstro	ong	
		HW	Flood Risk and H	lydrology technical lead, I	RHDHV	
		SF	Flood Risk and H	lydrology technical lead, I	RHDHV	
		CM	Land qua	lity technical lead, RHDH\	/	
		KD	Geology and la	and quality consultant, RF	HDHV	
		RT	Onshore conse	nts manager, RWE Renev	vables	
		RG		ent team, Lead Local Floo ling of Yorkshire Council)	od Authority	
		АН	Civil engineering and	d design support, Wardell-	-Armstrong	
, and a second	Apologies	Initials	Ro	ole & Organisation		
		RH	Proj	ect Director, RHDHV		
		SC		ood & Coastal Risk Manag ority, East Riding of Yorks		
		PM	Civil engineering a	nd design lead, Wardell-A	rmstrong	
		ND	Onsh	nore EIA lead, RHDHV		
Meeting Ag	genda/ Objective(s):		<ul><li>Project design up</li><li>Flood risk and hy</li><li>Outline Drainage</li><li>Geology and Lan</li><li>AOB</li></ul>	Strategy		
Item		Desc	ription/ Discussion		Presenter	
1	Project design updat		_			
	AB presented a summ	nary of the D	BS projects' as below:		RT	



- There are two offshore wind project DBS East and West. Together they form the Dogger Bank South (DBS) Projects.
- Located 100km offshore no landscape visual impacts as a result of being so offshore.
- Once the works are complete, total output will be 3GW of power one of RWE's bigger offshore wind projects. This would provide electricity to approximately 3 million homes.

#### Infrastructure:

Offshore substations – converts energy in high voltage direct current (HVDC). This electricity generated is then transported all the way, via subsea cables to the landfall location, to the onshore converter substations and converted again, this time into high voltage alternating current (HVAC). HVAC is what National Grid use to transfer electricity on its network.

**Onshore cable route**: Connects at the Landfall zone near Skipsea.

- 35km of onshore cable route takes us to the converter substation location where the DC to AC conversion takes place, to the National Grid substation near Creyke Beck known as Birkhill Wood.
- Additional 4km of onward cable routing to National Grid.
- HVDC Current

#### **Intertidal works:**

Trenchless cable installation solution is proposed to help avoid the eroding of the coastline.

- 6 ducts
- 4 power cables
- 2 fibre optic cables

Please see slides (1-3) for further details and pictures – shows the landfall construction compound area.

Intertidal works (slide 5):

- Construction of up to x6 cofferdams sheet piled in place for up to 18 months.
- Supported by two floating installation units.
- Excavation of Horizontal Directional Drilling (HDD) exit areas.

Large area - widest extent for worst-case assessment purposes.

Blue Box - HDD compound

- Trenchless cable installation technique takes us under the shoreline.
- Refinements due to coastal erosion rates have been taken into consideration.

Furthest extent into the sea is the mean low water springs (MLWS).

- Potentially looking at putting in cofferdams to the beach to receive the drills. Depending on where these sit, excavation may be needed specific equipment needed. Will take 18 months to construct.
- Will be mentioned in the ES.

**Emergency beach access** (slide 7-8)- anything that is constructed on the beach (cofferdams or excavating) would be brought in by barge ie not from the landward side, and thereby reducing onshore vehicular construction traffic.



No operational access is planned for the beach – emergency access shown on the plan is only for Health and Safety emergency access in the event of equipment or plant failure.

No direct access from landfall to the beach compound.

This was of interest to Natural England: As a result of the refinement of the landfall zones to one zone since PEIR stage the Withow Gap SSSI is further away at approximately 380m to the south.

## Cable corridor: General construction: (slide 9)

- 35km of cable route from landfall to the converter stations.
- 75m wide corridor for this cable construction (could widen to 90m for complex areas for HDD), includes up to 4 trenches. A large proportion of the 75m width is to allow for separate storage of topsoil and sub soil.
- 1 haul road which will serve both projects for construction.
- Deep horizonal directional drills, and trenchless techniques wider route for those works.
- Converter station slightly more space required for cables 100m wide sway. 4km up to the National Grid connection point.
- The onward cable routing to National Grid Birkhill Wood substation would be 4 kilometres and using HVAC technology for transmission.
- Where the cable corridor splits into two to avoid a solar farm and pipeline constraints in the area the split corridor widths are up to 53.5m.

#### Indicative cable corridor cross section:

At PEIR it was not known whether to fully separate them, and how to site haul roads.

Now refined to one haul road. Large proportion of the area is for the sub and topsoil storage.

- Haul road is located down the centre of the cross section
- Trenches for cable installation on each side of the haul road, and then further out on each side are areas to separate the sub and topsoil stored on both sides of the haul road.

## Converter station zone: Refinement (slide 11)

Refinement of converter stations since PEIR.

Converter stations were located in Zone 1 and 4 but are now co-located in zone 4 only, located north of Bentley and to the south of Beverley.

Overall, this has reduced the percentage of land coverage.

## **Programme: Current Status**

PEIR Consultation feedback received in July 2023.

Design has been frozen incorporating feedback from statutory consultation in October 2023 – targeted consultation commenced 13<sup>th</sup> November.

Environmental Statement chapter drafting is ongoing.

The DCO application is due for submission in May 2024.

Examination period commences from May 2024 and may last 18 months.

Construction - earliest 2026.

Operation - earliest start in 2029.



	Changes since PEIR:	
	<ul> <li>Changes since PEIR:         <ul> <li>One landfall site (zone 8) was selected – previously there were two.</li> <li>HVAC technology has been dropped as it required more space and HVDC is technologically more advanced.</li> <li>Reduced the need for two converter station zones, shared compounds for both projects will also reduce the amount of land take – Co-located converter station on Zone 4.</li> <li>1 haul road serving the converter station has reduced overall area required for construction.</li> <li>Build out scenarios – ducting will be put in for second project during construction of the first.</li> <li>Red line boundary: Dotted outline (Map – see slide 13) for red line boundary – now slight changes – reduced area of land take.</li> <li>Landfall location and greyed out locations have been reduced.</li> <li>Cable route – Nunkeeling (side 19) – Big area of change: Geophysical surveys and trial trenching archaeological works undertaken. This area was shown to have sensitive archaeology that required avoidance – so a big re-route to the west has taken place.</li> <li>Reroute in relation to mineral sofeguarding area – moved away from residential receptors and to minimise sterilization of the safeguarding area.</li> <li>Substation selection and technology choice has been made – 1 site over two options.</li></ul></li></ul>	
	None	
2.	ES Chapter 20: Flood risk and hydrology – PEIR comments and ES updates	SF
	Comments were listed and mentioned – from slide 22  Section 42 Comment topics:	
	<ul> <li>Lifetime of the project – dictated by lifetime of key elements on the projects, and how lifetime is used by the FRA.</li> <li>Future flood risk – maximum and credible scenarios</li> <li>Landfall – Construction methodology – minimise environmental impact, and implications of coastal change on landfall siting and methodology.</li> </ul>	



#### Stakeholder Questions:

DP: Questioned why the site would be decommission after only 30 years? Is there no option to extent or renew/replace the structure to extend the life span. Could a sensitivity test (longer than 75 years) be done to demonstrate it doesn't need to be mitigated for?

RT: Confirmed the Projects have the option for a 60-year lease with the Crown Estate, and a 30-year design life, based on the average lifespan of the offshore wind turbines. After the initial c.30 years operational period agree in the DCO consent, if the Projects wanted to extend operation for a further 30 years we would have to apply for new consent and complete further environmental assessment. The Projects would also be required to prepare a Decommissioning Plan, prior to the commencement of any decommissioning works.

DP: Confirmed that if that is made clear in the documentation - that should be fine.

RT: Confirmed there is text in the decommissioning section of each chapter in the ES and that Chapter 5, Project Description will also include this requirement for a Decommissioning Plan.

HW: Confirmed that design life is covered in the FRA, but will take this away and make an action to make sure this is clear.

DP: Confirmed clear justification of why you are not assessing a 75 year life span is required in the FRA. DP advised there are other projects, which are following different routes and have suggested doing the 75 year as a sensitivity test, but they do have structures within flood zones [2 and 3], so they need to set flood sensitive equipment at a certain height. DP confirmed it is it's less of a concern because the Projects above ground infrastructure is in Flood Zone 1.

DP: Confirmed if the Projects considered other climate change allowances within the FRA this would address his comment.

HW: Confirmed this is the case but, will make an action to check this is clear.

SF: Explained how the Projects would interact with flood defences:

- Monitoring below flood defences will be considered in the ES and secured requirement in the DCO.
- Trenchless Crossings all trenchless construction activities will take place 20m away from the 'Main River' or from the nearest toe of any flood defences. Methods will be included in the Obstacle Crossing Register (OCR).
- Flood defences we have taken into account any existing strategies, and we will consider any emerging strategies along the route.

## Comments on Flood defences: Questions:

DP: Not aware of any future schemes at the moment for setbacks and removals. There are embankments on the River Hull and Monke Dyke, they are maintained defences.

Monitoring – with regard, if there is a noticeable slump of the bank/defence due to directional drilling you will need to speak to us to solve this – to get a specific permit to carry out repairs with us.

You mentioned in your notes, the possibility of setting up a meeting regarding flood risk activity permitting.

RT: Wondered if this was an option.

DP: DP confirmed this would be an option but, may be easier to apply for permits and exclusions than disapplication in the DCO. We could agree on a depth



underneath, whilst considering geomorphology and ecology – it's possible for an exclusion for trenchless crossings under a main river or embankment – could apply in theory for those if everything is covered by the DCO.

Can set up a conversation, would have to involve a few different teams as there is a lot of different legislation involved in these permits.

RT: Set up a call to discuss the DCO with legal team – Action. Discuss the pros and cons.

SF continued the presentation:

- Surface water/flood risk There will also be a Surface Water Management Plan prepared by the Contractor prior to construction setting out the requirements for the temporary drainage in the outline code of construction practice [OCoCP] that's secured in DCO.
- Water course crossings what IDB drains would be crossed.
- Land Drainage i drainage features will be identified prior to construction for consideration in the detailed Drainage design.
- Permission and Access- apply for the correct permissions and allow maintenance of access for the IDB during construction. RT will also be seeking to agree to the disapplication of the Land Drainage Act for Ordinary Water Courses managed by the IDB and LLFA and include protective provisions in the DCO.

Refined Environmental Statement Baseline: See slide 31 - 34 for full details.

The route refinement doesn't really affect the baseline because the assessment is based on the water body catchments, and we are still crossing all the same catchments, as presented in the PEIR assessment.

Surface water drainage (Main rivers) crossed:

- Stream Dike Southern of Catwick and 6 others crossed.
- 13 waterbodies catchments crossed by the project (surface and groundwater)

Surface water Drainage (IDB Drains) crossed:

- 9 drains listed

Maps on slides 36 show the water crossings.

## Is there agreement on the study area?

OC: Is that yes? No one made a comment, can we assume you agree?

EC: from a ground water perspective it all looks good.

OC: David are you happy with that?

DP: Yes, all looks acceptable to me.

No disagreement from ERYC at the meeting.

Flood Zones ES to PEIR - Refined.

Images on slide show comparison between the ES and PEIR. No major difference in the flood zones that are crossed.

- Southern landfall was removed partly in Zone 3.
- Wider corridor now.
- Flood risk areas affected were larger in PEIR.



## **Summary of slides:**

Slide 39 shows the comparison between ES and PEIR (right). There is not a big difference in the flood zones we are crossings since the area covered has been reduced and the corridor has been narrowed. The next slide shows in more detail the landfall, highlighting how the southern landfall has been removed (zone 3), and where the corridor has been narrowed.

Slide 41 shows the onshore converter station and the surface water flood risk areas around these stations. You can see that since PEIR there has been a reduction in area covered, and therefore, less area at risk of flooding. This is discussed in more detail in the Outline Drainage strategy slides.

## Is there agreement on the baseline coverage?

Everyone agrees.

Update on Assessment: Recap:

Impacts 1-4 were assessed - Slides 39-40

- 1. Direct disturbance of surface water bodies based on the number of trench crossings. Could place a bridge or a haul road to cross.
- 2. Increased sediment supply referring to land disturbed from redline boundary.
- 3. Accidental spills or leaks of contaminants again referring to redline boundary and the vehicles used.
- 4. Changes to surface and groundwater flows and flood risks.

With mitigation in place, we are looking at negligible to minor adverse effects. No significant effects in terms of EIA for Flood Risk & Hydrology.

## Questions:

OC: any comments on the mitigation? Any others that should be given? EC: No looks like you have covered everything we would want at this stage. No disagreement from ERYC was recorded at the meeting.

More detail: (slide 42)

## Impact 1: Effects during construction: disturbance of water bodies

Slide shows where trenches will be done - IDB catchment.

Total trenched crossings worst case - 15

The assessment is based on the number of trenched crossings in each water body catchment – quite low in all except Beverley & Barmston Drain (16 crossings), and Catchwater Drain (9 crossings).

Method of trench crossings: see slide 45/46

- Temporary dams up and down stream
- Depth: 2m below channel
- Flow maintained through temporary pumps and fish filters.

Mitigation proposed (slide 46).

- Restricting the amount of time that temporary dams are in place.
- Appropriately sized pumps, flumes and diversion channels
- Fish rescue
- Diversion channels
- Scour protection

No trenched river crossing crossings – Main River (Environment Agency) (Stream Dike and Monk Dike) – all will be HDD instead.



## Impact 2: Effects during construction: Increased sediment supply

Large area flood zone:

- Table on slide shows the catchments affected.
- Works in flood zone 2 and 3 (Mainly 3 = Blue areas)
- Two columns show the area of disturbed ground, and the % of the catchment area.
- We just wanted to clarify its unavoidable, but we will mitigate that by not blocking existing channels and not allowing any gaps.

#### **Questions:**

Anything else, does this look agreeable?

DP: Yes, sounds fine – just need to ensure you are not altering the flood flow routes then its fine. Depending on the disapplication question, a flood risk permit might be needed.

RT: Will take this away and arrange a meeting with the relevant EA contacts.

## **Operational effects:**

- Similar to construction.
- Two impacts 1. Isolated and infrequent spills of contaminants. 2. changes in groundwater flows/flood risk.

This is explained more the drainage strategy coming up.

These impacts are related to the permanent structure in each catchment area.

Again, negligible to minor adverse (non-significant) impacts.

## **Decommissioning effects:**

- Similar to construction

## **Questions:**

Are we in agreement with the effects that are being assessed?

DP: Yes, will flag the effects as a result of those stations – outside of the Environment Agency, may need to talk to other stakeholders regarding FRA.

No disagreement from ERYC was recorded at the meeting.

## **Water Environmental Regulation Compliance Assessment:**

See table in slide 52.

Shows what has been screened in and out.

Catchments were all screened in apart from the Barmston Sea Drain from Skipsea Drain to N Sea – based on distance away and the mitigation put in place.

- Emergency access only crosses this.

## **Questions:**

SF: Do you agree with these water bodies being screened out?

SF: Silence is a yes then?

OC: Any comments?

DP: In terms of flood risks - yes. Biodiversity concerns I cannot comment.

EC: Same as David, I agree based on flood risk concerns – looking at it from around water and contamination side.

SF

## Summary (slide 54) Update on Assessments: See slide for details.

The Implementation of control measured during the construction and operation phase means there would no potential risk of non-temporary effects to the river or groundwater bodies assessed or protected areas. This assessment is complaint with the water environment regulations.

## **Cumulative Assessment:**

- Lots of projects in 5km buffer.
- We looked into their connection to surface waters.
- Screened out smaller developments.
- 12 projects assessed, including a solar farm = 13.
- No significant effects expected. No cumulative effects.

## See slide on details surrounding the other projects.

## **Questions:**

SF: Do we agree with this cumulative approach?

DP: Is the solar farm the Pear Tree solar farm? Just checking as that one is on my desk.

RT: It is also another RWE project – working with them to ensure there is enough space for both projects.

DP: Great, that was a concern for me on how many projects are in the vicinity. Might be worth flagging that in future descriptions.

RT: Yes, we make sure that any assessments considering other projects (RWE), such as assessments in cumulative impact assessment, will cite each other respectively.

## FRA:

#### See slides for details.

- Undertaken in accordance with guidance and policy.
- Supported by the Outline Drainage Strategy.
- We are not proposing more/new modelling for this more extensive work in Flood Zone 3 - all underground - so no modelling considered at this point, but mitigation measures in the OCoCP are addressed in ES chapter.

#### **Questions:**

SF: Do you agree Helena, anything to add?

HW: No, nothing to add - just want to make sure there are no disagreements.

DP: That is reasonable - would mention again if what I mentioned at the start, I think which the development lifetime was just making sure that's fully covered off and justified. And if you've got that extra sensitivity in to show, it's not at risk, should it be extended then or to the better.

HW: I have taken an action for this David.

OC: Any other comments on FRA?

RG: No, looks fine to me.

## **Outline Drainage Strategy**:



See slides for updates.

AH

#### Construction:

Preconstruction drainage scheme will be developed by a land drainage specialist, prior to the main construction works.

- A Surface Water Management Plan will also be developed and agreed in advance as well.
- SuDS guidance from the NPPF, East Riding planning guidance, SuDS manual
- source control and site control for the development.
- Proposed surface water discharge to a surface water body
- Unlikely to use infiltration drainage because of the ground conditions and cohesive deposits. No significant possibility of infiltration.

#### Operation:

Outline Operational Strategy Proposals: See slide for more detail

- Surface water run off will be controlled near the converter station and discharged into a surface water course.
- Filter trenches will also receive discharge picked up from road runoff.
- Natural run-off from topography will be picked up by interception drains and directed into the surface water courses.
- watercourses crossed by proposed permanent access road culverts or bridges to be constructed to maintain existing flow paths - for detailed design stage.

## **Questions:**

RT: did you want to add anything on the perimeter drainage? Diverting the ordinary water course into the drains?

CS: It's to protect the platform from overland flows. Ditches for example, to mimic the ordinary water course to help the surface run-off be diverted into the water course/stream.

DP: I assume that the existing water courses are being diverted – which raises another question. One seems to emanate from the site – is it spring fed or is it based on surface water flows that fill it? The flip side (the LLFA can come in on this), if you are diverting and filling in the water course flows you will need land drainage consent – if not in an IDB area it will require from the LLFA for consent.

RG: That is correct.

RT: The substation zone is located in the Lead Local Flood Authority area. RT also requested a meeting was set up with the LLFA (ERYC) to discuss the option of disapplication of the Land Drainage Act and agreement of suitable protective provisions in the DCO.

RT: requested that ERYC review the Outline Drainage Strategy issues ahead of the meeting and provide any comments following the meeting.

RG: Confirmed he had not yet been able to review it fully.

DP: Confirmed the Drainage Strategy falls outside of the Environment Agency remit, as it considers ordinary watercourse, so any works to divert those or the impact on flows would be down to the Lead Local Flood Authority [ERYC].

RG: Confirmed any discharge from the substation, would need to be agreed with ERYC as the LLFA.

CS



## **SuDS Design Parameter - Summary capturing worst case:**

This slide is a summary of the design parameters we've used, and we've tried to look at the worst-case scenario,

- Included the top area of the SuDS basin in the design.
- limiting the runoff rate from the basin to the Greenfield runoff rate
- Designed to cater for up to the 100-year storm event with a 40% climate change allowance.
- Maximum design depth for the basin at 1 metre and then allowed for an additional 0.5m freeboard on top.
- Sensitive sensitivity checks on that design for the 1,000-year Storm event, which includes 40% climate change.

Another sensitivity check was done to see if there is capacity within that free-board for our one in 10-year storm event plus climate change following the design storm event which is the 100-year storm event +40% climate change.

## **Summary:**

This slide (63) is just a summary of the design parameters, where a worst-case scenario was used. We've assumed that the entire footprint of the substation is going to be 100% hardstanding. This was used in the design of the volume of the SuDS basin and also included in the top area of the SuDS basic, so any water landing on the SuDS basic was included in the design.

We are limiting the runoff rate from the basin to the Greenfield runoff rate for the one in one year rainfall event, which we've calculated at 18.7 litres per second.

We are designed to cater for up to the 100 year storm event with a 40% climate change allowance, and we have set the maximum design depth for the basin at 1 meter and then we've allowed for an additional not half a meter freeboard.

Sensitivity checks have also been done in addition to all these. See slide 63 for details.

#### **Questions:**

CS: If anyone wants anything clarified just let me know.

OC: Does everyone agree with the design parameters?

RG: I think it's very similar to what the drainage Board request as well. Is that how they were calculated?

SN: It's actually the one in one year rainfall event using the online Wallingford tool. But we've checked the two litre per second per hectare, and after following the comments of the Drainage Board, we checked the 1 in 4 event which would actually be slightly more than the 18.7 we've adopted.

## **Next steps:**

Chapters are continuing to be drafted.

- Taking into account the PEIR responses and requirement (October - December)

Updating the ES for May submission.

Another ETG planned in the new year for another update prior to submission.

CS



	AOB:	
	OC: any other thoughts?	
	No comments.	
4.	ES Chapter 20: Geology and Land Quality– PEIR comments and ES updates	KD
	<ul> <li>PEIR comments:</li> <li>I'm going talk through the Section 42 comments we've received: <ul> <li>So, the main ones from the Environment Agency related to making sure that we got in contact with East Riding for information on the private groundwater abstractions that may be impacted by the projects.</li> <li>We received this information, and we've reviewed it as part of the update in the Geo environmental Desk study, the PRA and the ES chapter.</li> <li>An additional comment from the Environment Agency related to ensuring that the PRA was undertaken in line with the most up-to-date guidance and the PRA has been developed in line with the most recent updates to the Land Contamination Risk Management Guidance - as well as all of that relevant guidance where appropriate.</li> <li>Potential impacts have been assessed within the ES.</li> </ul> </li> <li>Any queries?</li> <li>EC: Happy with that.</li> </ul>	
	<ul> <li>S.42 Comments raised by Natural England:: <ul> <li>Requested that we review how the significance of effect was assessed within the chapter and within the ES. We've assessed it in reference to the definitive standards and they accepted criteria or legislation.</li> <li>As previously mentioned by RT, one of the concerns was the impact on Withow Gap SSSI at landfall. Now that that one landfall option nearer to the SSSI has been removed there should not be any impacts to this designated site.</li> <li>With regard to soils and agricultural land, within the Geology and Land Quality chapter we only assess it in terms of contaminated land potential. The Land Use chapter discusses the potential impacts associated with soil degradation and agricultural land use.</li> </ul> </li> </ul>	
	ES Chapter - Introduction: Following on from the PEIR chapter, the ES chapter provides an updated baseline environment following the refinement of the onshore development area. The chapter also provides enough dated list of receptors that may be impacted by the projects as well as an updated assessment of the likely significant effects on those receptors during the construction, operation and decommissioning phases of the project. The ES also takes into account the Section 42 comments that I've just discussed.	
	Geology and Land Quality Study Area: The geology and land quality study area includes both the land located within the red line boundary and two buffer zones.  - We have a 250-meter buffer zone applied to the red line boundary to identify the potential sources of contamination, and  - the one-kilometre buffer zone applied to the red line boundary to access the presence of control of major accident has its sites and groundwater abstractions.	KD



The study area has been defined on the basis over which the potential impacts may occur and by the location of any receptors that may be affected by those impacts.

#### Questions

OC: happy with those?

EC: Yes, all seem appropriate

OC: David:

DP: Yes, but not really my area of expertise.

## **Refined Environmental Statement Baseline**

## Environmental setting:

We have reviewed records relating to pollution control, waste (which is illustrated by the green shaded area on the figure of the slide), environmentally sensitive areas (for example, Burton Bushes, which is illustrated on the middle figure), agricultural land designations, and historical and current land uses (which illustrated by the coloured dots on the final figure).

The ground investigations conducted within the vicinity of the landfill area high-lighted in green, to date have not found evidence of landfill waste or impacted groundwater within the exploratory holes located within the red line boundary of the project.

#### Geology:

In relation to geology, we reviewed records associated with superficial deposits (as illustrated on the first figure), bedrock geology, mining and mineral extraction, including mineral safeguarding areas (illustrated on the middle figure), and Local Geological Sites with Skipsea drain (illustrated on the final figure).

## Hydrogeology:

For hydrogeology, we reviewed records associated with aquifer designations, with secondary A and secondary undifferentiated aquifers illustrated on the first figure, source protection zones (illustrators on the middle figure), groundwater abstractions, including private, potable, and agricultural abstractions (as illustrated on the final figure).

## Hydrology:

And for hydrology, we reviewed records associated with discharges to controlled waters and pollution incidents (as illustrated on the first figure), surface water features Water Framework Directive surface water features, flooding, and surface water abstractions.

#### Questions:

KD: Does everyone agree with the receptors?

EC: Yes, I agree.

No other stakeholders expressed disagreement.

## **Update on Assessment:**

Potential Effects During Construction

Following the revision to the baseline environment, the impacts on the identified receptors were assessed for DBS East or DBS West, built in isolation, or together, based on the worst-case scenario.

ΚD



- Prior to the implementation of mitigation measures, the assessment of potential impacts, during construction, identified the significance of effects ranging from minor to major adverse.
- Where risks were deemed to be significant in EIA terms, mitigation measures proportionate to the level of risk have been discussed within the ES chapter to minimise risks as far as reasonably possible.

Potential mitigation measures discussed within the ES chapter include, for example:

- Targeted pre-construction ground investigations.
- Hydrogeological risk assessments.
- Piling risk assessments; and
- Through the other implementation of the mitigation measures, the residual significance of effect during construction is reduced to minor adverse, which is not considered significant in EIA items. That is for all receptors and impacts assessed.

#### Questions:

OC: Do you agree with these?

EC: No further comments on that one.

## Potential Effects from Operation:

Assessment was slip into DBS Est and West, or together.

The assessed has assumed that the mitigation measures discussed in the construction phase form part of the embedded mitigation for this phase, which has resulted in residual significance of effect of minor adverse for all potential impacts assessed within the chapter.

Impacts associated with the decommissioning phase aren't yet known, but are anticipated to be similar in nature to those of the construction phase..

## **Questions:**

OC: any comments?

EC: no, would like to see the Code of Construction Practice when written.

## Hydrogeological Risk Assessments:

For the hydrogeological risk assessment, a two-stage approach is proposed for the projects.

- The first stage will identify the potable groundwater abstractions located within a 250 metre buffer zone of the projects, and this will be accompanied by a review of BGS borehole data, geological mapping and any other available information to determine the geology from which the abstraction is taken and if it is at a depth that may be impacted by the projects.
- The second stage of the process will involve a detailed hydrogeological risk assessment being undertaken for those abstractions identified as potentially being impacted by the projects, and this detailed hydrogeological risk assessment will also be undertaken where the projects interact with SPZs.

#### Questions:

OC: Do you agree with the approach?

ES: I do yes, just make sure that the potable ground water includes water intended for human consumption.

**Cumulative Effects Assessment:** 

KD



5.	The cumulative effect assessments for Geology and Land Quality – a review of other projects located within 1 Km of the red line boundary has been undertaken and the review had identified projects that range from:  Re-organization of holiday parks; and  DCO project, for example, Dogger Bank A & B, and Hornsey Four.  These have the potential for a spatial and temporal overlap with the projects and may lead to direct or indirect impacts on shared receptors.  The cumulative effect assessment identified that there would be no significant effects arising from the projects reviewed on their identified receptors.  Questions: OC: any comment? No reply, so we assume all happy.  Next steps: Associated with the Geology and Land Quality chapter.  Will continue to engage with the relevant stakeholders and ensure that any feedback gathered as part of the ETG process is incorporated into the ES chapter.  AOB  We will issue draft meeting minutes for comment, and agreement logs for responses and feedback.  Anything further to add?  RT: Thank you for attending, and we will look to put another ETG in the diary for February. We plan to submit in May so will be good to meet before submission. We can focus more over the details in the Code of Construction Practice. We're not expecting any major changes in terms of adverse effects between now and then. We're just working our way through the review process really to get to submission.	OC
Action ID	Action	Owner
1.	To make sure it is clear in the FRA why decommissioning is after 30 years, and we have not undertaken a 75 year lifetime assessment	HW
2.	Set up a call to discuss the DCO with legal team and permitting/disapplication in the DCO with the EA and ERYC as the LLFA.	RT



# **Minutes of Meeting**

Onshore PRoW and Access ETG					
	Document Number: 004994851-01				
M	leeting with:	ing with: Onshore PRoW and Access ETG			
Location: Online			Online – Mi	crosoft Teams	
Start '	Time of Meeting:	10am	<b>Date of Meeting:</b> 14 <sup>th</sup> December 2023		2023
	Attendees	Initials	Role & Organisation		
		RT	Onshore Consents Manager, RWE Renewables		<i>r</i> ables
		OC	EIA Project Manager, RHDHV		
		KD	Land Use ES Chapter consultant, RHDHV		HV
		AC	Rights of Way Officer, East Riding of Yorkshire Council		re Council
		ED	King Charles III England National Trail Coastal Path Office East Riding of Yorkshire Council		Path Officer,
		IR	Kingston upon Hull & East Riding of Yorkshire area, Joint Local Access Forum		area, Joint
AH Kingston upon Hull & East Riding of You Local Access Forum			hire area, Joint		
	Apologies	Initials	Ro	le & Organisation	
		RP	Major Marine Developments Lead Adviser, Natural England		
Meeting Agenda/ Objective(s):			<ul> <li>Welcome and Intro</li> <li>Project Update</li> <li>PEIR Consultation</li> <li>Environmental Star</li> <li>Summary of PRoW</li> <li>AOB</li> </ul>	responses	
Item	Item Description/ Discussion Pre		Presenter		
1	Welcome and Introductions  OC welcomed the attendees and invited each of them to introduce themselves.		OC		
2	Project Overview		RT		
	RT gave other attendees an overview of the project. Due to the familiarity of the attendees with the project the overview was focused on updates regarding the PEIR and Section 42 consultations.  RT made attendees aware that the subject of the meeting would be related to the				
	onshore infrastructure. Attendees were shown a plan with the frozen design of the onshore cable corridor from the landfall point near Skipsea to the national Grid Birkhill Wood Substation.				
	Onshore aspects  Attendees were made aware by RT, that the design will use High Voltage Direct Current cable in the corridor. This change allowed the corridor footprint to become narrower at a width of 75m and a width of 90m for complex crossing.				



#### Substation site

RT gave attendees an update to the substation site design, specifically, that after the Section 42 consultation it was decided there would be two co-located HVDC substations (maximum building height of 24m) on Zone 4 (north of Bentley village).

AC queried cable route connection to Creyke Beck and whether the design interface with Jocks Lodge scheme alterations have been considered.

RT responded that following a meeting with the Jocks Lodge project team, the interface with Jocks Lodge would be captured in the PRoW Management Plan when updated although details were not currently clear. AC advised that Simon Parker would be the relevant officer at East Riding to liaise with over the Jocks Lodge plans and areas west of River Hull around Beverly and Cottingham.

IR queried design interaction with Walkington Footpath 4, RT responded it would be covered later in the meeting.

RT went over the different development scenarios that will be proposed in the DCO application, which included:

- DBS EAST or DBS West is built in isolation.
- DBS EAST and DBS are both built concurrently.
- DBS EAST and DBS are both built sequentially.

Based on these scenarios the project construction duration for the onshore component of the development is projected to be up to 4 years for depending on an insolation/ concurrent build scenario, and up to 6 years for a sequential build scenario.

## Status of applications and associated documents

RT outlined the current status of the PEIR consultation. Based on feedback from the consultation, design of the cable corridor route was frozen for the purposes of ES and DCO submission. ES chapter drafting and PRoW Management Plan is in progress.

## <u>Indicative programme</u>

RT also specified key dates from the indicative programme. The project is progressing towards the next milestone, preparing the DCO application for submission in May 2024. Examination is expected to be completed in 18 months, resulting in a decision by approximately November 2025. Based on these predicated dates, construction may be able to start in 2026 with a view to becoming operational in 2029.

## Refinement of Onshore Development Area: Key decisions

RT described the key decisions that had been made prior to the design freeze, which included landfall site selection, using HVDC technology, converter station site selection, and commitments to minimise impacts such as sharing haul roads and other temporary infrastructure between DBS East and DBS West. RT explained changes at landfall and the emergency beach access.



	Cable Routing RT showed attendees the changes to the cable corridor route. This included a change around Nunkeeling and Long Riston, due to heritage assets and sand and gravel deposits, respectively.  IR mentioned move of the (Ineos) pipeline and asked how DBS scheme intersects with Hornsea4 project, the SSE scheme and the A1079. RT confirmed RWE was in discussions with both project teams over access interfaces to ensure all were considered and any feedback from stakeholders on interface issues would be welcomed to help update the PRoW Management Plan.	
3	Public Rights of Way and Registered Common Land (presentation slides 22-23)  KD explained the split of scope between Land Use ES chapter (PRoW) which addresses Land Use S42 comments and Tourism and Recreation ES chapter (Open Space), and both chapters addressing updated baselines following refinement of the Onshore Development Area.	KD
4	PEIR Responses  PRoW concerns from Beverley Ramblers and East Riding of Yorkshire 7 Kingston upon Hull JLAF were raised and relevant responses provided with respect to stopping up Minster Way Footpath, subsequent restoration works, and the PRoW Management Plan to address construction.	KD
5	Environmental Statement Update following route refinements:  PRoW and Registered Common Land (slides 27-28)  KD explained reductions in PRoW being affected following route refinements, and that no Registered Common Land was impacted by the DBS project.	KD
	Intertidal works and Beach Access (slide 29) RT summarised the works in the intertidal zone including potential cofferdam construction in the beach zone (keeping the beach open), HDD exit works, and installation of offshore export cables from HDD exit areas/cofferdams to below MLWS.  Beach access for construction was confirmed as being from the seaward side via barges and no direct access from the landfall compound to the beach.  Emergency access from a temporary compound north of Ulrome would not be used during construction and used only in rare HSE circumstances, via widening works to an existing access track. RT confirmed to ED that the red line boundary area around landfall would not be fenced off, the King Charles III Coastal Path would remain open and that the inland construction compound (blue box) would be micro sited later at the detailed stage due to geological and other considerations. The compounds would be fenced off and ED agreed they appeared sufficiently distant from the Coastal Path.  RT confirmed to ED that the small compound north of Ulrome would not be fenced off and used only if emergency vehicles needed to park or store temporary equipment.  IR highlighted issues Yorkshire Water had with HDD works on the Humbercare scheme, and that coastal erosion in this section of the beach, at 2m/yr and more in some places, should consider approximately 50m total erosion during the projects lifetime when considering the construction compound siting, as well as	RT



the impact on the King Charles III Coastal Path. RT responded that erosion rates had been explored with East Riding of Yorkshire Council at PEIR stage and they had issued the latest available erosion rate data. The construction compound (blue box) location is indicative and could change. The Coastal Processes ES Chapter addresses coastal erosion and has investigated longshore drift implications as well as a geotechnical investigation (GI) being undertaken and a contractor reviewing HDD options in light of the GI data. With respect to King Charles III Coastal Path RT confirmed that following construction there would only be c. 6 manhole covers to allow for cable duct inspection and maintenance and that there would be no impacts to the Coastal Path prior to construction being completed. IR commented if it was in hand and considered then that was good.

IR referred to British Antarctic survey data indicating potential 5m sea level rise and was worth considering and taking seriously. RT responded that the latest national data was being reviewed for the HDD detailed design and whilst potentially not picking up the very latest BAS data the engineering team were well aware of the implications of sea level rise and also not resulting in exposed cable ducts at the transition point. In a worst-case situation, a planning application would have to be submitted to address any changes, albeit the presence of buildings may be a limiting factor. The EA had been consulted in a separate ETG were also interested in coastal issues and East Riding of Yorkshire Council's coastal engineer (Mike Kitching) had also been contacted on the matter. RT commented that there were likely long term issues along the Coastal Path, ED agreed that the Path would need to be rolled back to the neatest available land, but in the case of the landfall zone there would be no permanent infrastructure other than manhole covers so was not unduly concerned. RT responded to confirm that whilst 2 years was allowed for cabling/ducting as a worst-case, the reinstatement timescales per section of ducting would be shorter, and that with the health and safety measures in place there should not be anyway way for members of the public to get into the construction compound or cofferdams when using the Coastal Path.

## 6 Summary of PRoW Management Plan (slide 32)

RT set out the following:

- The Plan is being drafted in January/February 2024 and will be an appendix to the Outline Code of Construction Practice
- The Plan will be issued to the ETG for gareement.
- No proposals to permanently close or divert any Prow or Cycleway during construction or operation.
- Walkington Footpath No'4 crosses the permanent access road for HVDC converter station.
- Woodmansey Bridleway No'6 (Park Lane) likely to be permanently impacted by National Grid substation proposal (PRX-12), but RWE not seeking consent for these works. RWE is engaging with National Grid over its plans which are not so advanced.
- Following construction and reinstatement works no permanent above ground works would impact PRoW and therefore measures affecting PRoW will be temporary.
- Final details for PRoW management including temporary diversions or alternative routes during construction would be agreed with ERYC via consultation on the final Prow Management Plan.

RT



AC commented that there had been issues of settlement and boggy ground resulting from cable route reinstatement works on other projects.

RT responded that if there were any details needing input from ERYC and its stakeholders on the PRoW Strategy then that would be welcomed. Pre- and post-construction surveys will be carried out as well.

IR commented on the following:

Temporary closures with short PRoW diversions (slide 34) – slide implies diversions within the site boundary and ahead of the excavation, so how would will management of equestrians and pedestrians be managed? RT responded that short PRoW diversions will be done in stages as the cable ducting progresses, whilst reinstating and reopening the PRoW once works were complete in any particular section.

IR queried if diversion sections are likely to be 10s of metres or 100s/1000s of metres?

RT responded that they would be fairly short although exact details could not be produced currently given the outline level of design, but in a piecemeal approach and more likely in 100s of metres depending on progress on any given day.

IR queried if equestrians would be expected to dismount, which carries the risk of riders encountering unstable ground (a question asked by the horse-riding community within the Local Access Forum). RT responded that there is a 2-5m width available.

IR continued that the feedback had been on whether mounting blocks would be provided. RT said there could be wording in the strategy to state that the surfacing would be sufficiently stable enough to not require that equestrians need to dismount but that if they did, RWE was open to suggestions on other measures. AC commented that horse riders often stated they preferred not to dismount due to less abled riders getting into difficulties, as well as having two-way gates wide enough to open, with a high latch (i.e., to use without dismounting). RT commented that these measures would be taken into consideration. AC responded that the British Horse Riders Society, NE and British Standards Institute had guidance on such measures. IR agreed that these measures were important as horse riders were better not dismounting as they had more control over the horses.

IR raised the issue of ground stability following reinstatement and the impact of shear force from horses using the reinstated ground weakening ground stability. This could in turn affect pedestrian usage of the PRoW. Could duct boarding be used? Long term settlement in reinstated areas was estimated to be around 25cm. In light of this, there should be a commitment to long term maintenance of the PRoWs affected over a period of around 5-7 years. RT responded that this would be considered but there were issues of biodiversity net gain and landowner issues to be address. Could S106 contributions be a way forward? AC mentioned it depends on the type of land use (e.g., agricultural uses). RT agreed the landowner may take issue with such maintenance if agricultural activities were affected but would liaise with the RWE lands team to see what agreements could be put in place with landowners. IR commented that this would be good, given the number of cable route crossings and number of PRoWs that could be affected in the wider area by the various wind farm projects planned. AC added some wording into the meeting chat could be considered to provide maintenance of footpaths following construction.

RT

RT

## Temporary Management Principles (slide 33)

RT summarised the No Management, Short-Term Temporary Stopping-Up, and Appropriately fenced (unmanned) and Manned crossing point options.

AH commented that there should be no closures of footpaths in combination with other projects, at the same time. RT confirmed that the ES assumed a worst-case construction scenario of 4-6 years, and that there would be some locations affected such the converter station and at jointing bays but that the majority of impacts are in the cable route areas, and that these would not be all constructed at the same time. AH reiterated the issue of long term subsidence impact on footpaths, who would do the monitoring and what reinstatement materials would be used, A S106 or similar agreement would be welcomed. RT agreed to take the ideas away and discuss with the contractor on board and propose measures for agreement with ERYC which when detailed would come forward and be implemented. AH added that landowners were not so concerned with footpath maintenance and that it was for the Local Access Forum and ERYC to ensure that such measures would be implemented. RT responded that agreements with landowners was necessary and needed further discussion with the RWE lands team

IR raised the consideration of community funds being an appropriate mechanism to allow for maintenance works to be carried out. RT agreed to consider this in discussions with RWE.

AH referred to Deborah Smedley as a contact at ERYC who deals with legal aspects of PRoW diversions.

Walkington Footpath No'4 control measures (slide 40) when a construction access road was in use were summarised.

- Temporary closure with short diversion when access road to substation zone installed. PRoW will cross permanent substation access road following completion of works.
- Permanent culvert and embankment to be installed for access road to cross a drain, parallel to PRoW. Steps may be required to reach same level of the access road. Crossing design to be agreed with ERYC.
- Crossing to be unmanned during operation (low maintenance traffic flows expected) but used for construction access for <6yrs, pedestrian traffic management required (e.g., traffic lights).

AC responded that the crossing would need to meet Access for All requirements i.e., a slope rather than steps. Typically, 1 in 20 slope but covered in guidelines. IR agreed it was necessary. RT would liaise with engineers over this.

All Cycleways control measures were summarised in terms of:

- Short duration closures with short diversions for pedestrians and cyclists
- Access to be maintained for pedestrians and cyclists, given right of way over construction haul road traffic.
- Longer closure of haul road may be required using suitable road diversions in place for other vehicular access (addressed in Traffic and Transport ES Chapter)

IR commented that he was pleased there had been due consideration of PRoW management as explained by RT.

Update on Assessments: KD summarised the following:



Action ID	Action	Owner
	Meeting ended.	
	RT thanked ED for this and queried whether stakeholders had been involved in agreeing/drafting Statements of Common Ground (SoCG). None had had previous involvement. RT concluded that agreements would hopefully in place at an appropriate time prior to DCO submission to reduce the risk of adverse feedback following submission of the DCO application.	RT
	ED commented that it was worth noting that the King Charles III Coastal Path at the landfall zone is not classified as a PRoW but is the 'Coastal Access Scheme' (published 2009). In summary this means that when the National Trail is open the general public can access any land on the seaward side of the Trail (the 'spreading room') so to be careful using terminology. ED agreed to issue the Coastal Access Scheme document to RWE/RHDHV for further information.	
	Next steps  Update of PRoW Management Plan following stakeholder comments made today.  Cumulative effects assessment to include Jocks Lodge, Hornsea Offshore Wind Farm 4, National Grid (Birkhill Wood)  Land Use and Tourism and Recreation ES Chapter drafting also underway.  Ongoing consultation and further ETG with stakeholders planned.  IR commented that JLAF had been in discussions with Hornsea 4 project over Footpath 16 (at Creyke Beck) which may be diverted. RT responded that there would be further liaison with Hornsea 4 over their diversion plans. AC mentioned that Deborah Smedley would have knowledge of the Hornsea 4 diversion plan. RT agreed the PRoW Management Plan would be updated with these considerations in mind. IR highlighted that the Cottingham community were interested and vocal on local projects' effects on PRoW and to be aware. IR also commented that Horsea 4 intended the use of a layby on the A1079 which would cross the DBS cable route. RT responded that the DBS project and National Grid are intending to use a shared access with Hornsea 4 and discussions are underway with both projects to agree the best approach to integrating plans. The PRoW Management Plan will be updated with comments raised today and reissued to stakeholders for any further comment or if necessary, another ETG could be planned prior to DCO submission.	
	<ul> <li>No permanent closures of PRoW</li> <li>Potential Effects during Decommissioning</li> <li>Anticipated to be similar to those identified during construction.</li> </ul>	
	Potential Effects during Operation  No permanent closures of PPoW	
	<ul> <li>PRoW closures would be up to 3 months.</li> <li>Some PRoWs including King Charles III Coastal Path and Minster Way would not require closures.</li> <li>Potential impacts to PRoW are not deemed significant in EIA terms following implementation of mitigation measures.</li> <li>No impacts to Registered Common Land</li> <li>Comments made today will be incorporated into the ES assessment.</li> </ul>	
	Potential Effects During Construction	KD



1	at ERYC to be contacted as necessary with respect to legal aspects of PRoW diversions.	
2	Issue ETG meeting minutes and Agreement Log to stakeholders	OC



## **Minutes of Meeting**

			Terrestrial Ecology ETG		
		Documer	nt Number: 005011350-01		
	Meeting with:	Onshore Terrestrial Ecology ETG (Natural England)			
	Location:	Online – Microsoft Teams			
Star	t Time of Meeting:	2pm	<b>Date of Meeting:</b> 14 <sup>th</sup> December 2	2023	
	Attendees	Initials	Role & Organisation		
		OC EIA Project Manager, RHDHV			
		SB	Graduate Environmental Consultant, RHDHV		
		TC	Principal Ecologist, RHDHV		
	RT Onshore Consen		Onshore Consents Manager, RWE Renewa	ts Manager, RWE Renewables	
	EB Lead Advisor (Sustainable Development), Natur		al England		
		LS	Senior Advisor, Natural England		
		NW	Lead Advisor (Marine Major Casework), Natural England		
		LG	Terrestrial Ecologist, RHDHV		
		RY	RY Principal Ecologist, ECUS		
	AB Onshore Consents Manager, RWE				
	LF Senior Advisor, Natural England				
Apologies		Initials	Role & Organisation		
		RH	Project Director, RHDHV		
		LD	Associate Director, ECUS		
		ND	Onshore EIA Lead, RHDHV		
		RP	Major Marine Developments Lead Adviser, Natural England		
		LS	Consultant Ecologist, ECUS		
Meeting	Meeting Agenda/ Objective(s):		<ul> <li>Project Overview</li> <li>S42 Consultation responses: PEIR</li> <li>Environmental Statement Progress</li> <li>Biodiversity Net Gain</li> <li>Other S42 Consultation responses</li> <li>AOB</li> </ul>		
Item		Des	cription/ Discussion	Presenter	
1	<b>Project Overview</b>			AB	
	AB presented a summa	ry of the D	BS projects as below:		
	<ul> <li>There are two offshore wind projects – DBS East and West. Together they form the Dogger Bank South (DBS) Projects.</li> <li>Located 100km offshore – no seascape and visual impacts due to the long distance away of the wind farm array from landfall.</li> </ul>				



 Total operational output of 3GW will provide electricity to approximately 3 million homes.

#### Infrastructure:

Offshore substations convert the electricity generated by the offshore wind turbine array to high voltage direct current (HVDC). The electricity generated is then transmitted via subsea cables to the landfall location and to the onshore converter stations where it is converted hack to HVAC, which National Grid use to transfer electricity on its network.

#### Intertidal works

A trenchless cable installation solution is proposed at the landfall to avoid the eroding coastline, the following would be installed:

- 6 ducts
- 4 power cables
- 2 fibre optic cables

If a short HDD is selected, based on the outcomes of geotechnical engineering studies, there would be works required in the intertidal area, which have been considered as the worst-case scenario in the ES and include:

- Construction of up to x6 cofferdams sheet piled in place for up to 18 months.
- Supported by two floating installation units.
- Excavation of Horizontal Directional Drilling (HDD) exit areas.

Any construction on the beach (cofferdams or excavating) would be brought in by barge i.e. not from the landward side, and thereby reducing onshore vehicular construction traffic.

#### Emergency beach access

It was stressed that emergency access would only be used in the event of equipment or plant failure or Health and Safety incident.

RT highlighted that the Withow Gap SSSI is now located approximately 380m to the south of the landfall zone and would not be impacted by the Projects during construction or operation. [Post Meeting Note: NE have confirmed that they are in agreement there would be no further impacts on this SSSI by email on 11/01/2023].

#### Cable corridor: General construction

The change of electrical transmission system to HVDC allowed the corridor footprint to become narrower at a width of 75m and 90m for complex crossings. A single temporary haul road is likely to be located between the cable route trenches. RT confirmed a significant area of the cable corridor is for sub and topsoil storage.

## Converter station sites

AB gave attendees an update on the converter station site selection, specifically, that after the Section 42 consultation it was decided to co-locate the two HVDC converter stations (maximum building height of 24m) on Zone 4 (north of Bentley village).

## Status of applications and associated documents

AB outlined the current status of the projects. Following feedback received from the PEIR consultation some amendments and refinement to the Onshore Development Area have been made. Design has been frozen incorporating feedback from statutory consultation in July 2023 – targeted consultation commenced 13th November for those changes outside of the PEIR Onshore Development Area. The



project design envelope was frozen in early December 2023 for the purposes of the DCO submission and ES chapter drafting is in progress.

## <u>Indicative programme</u>

AB also specified key dates from the indicative programme. The project is progressing towards the next milestone, preparing the DCO application for submission in May 2024. Examination is expected to be completed in 18 months. A decision is therefore expected by approximately November 2025. Based on these predicated dates, the earliest construction start date would be in 2026, with a view to first operation in 2029.

#### Key decisions

AB described the key decisions that had been made prior to the design freeze, which included landfall site selection, using HVDC technology, converter station site selection, and commitments minimise impacts such as sharing haul roads and other temporary infrastructure between DBS East and DBS West.

#### **Cable Routing**

AB showed attendees the changes to the cable corridor route. This included a change around Nunkeeling and Long Riston, due to heritage assets and sand and gravel deposits, respectively.

#### <u>Development options</u>

To end the project overview, AB explained the different development scenarios that will be proposed in the DCO application, which included:

- DBS East or DBS West is built in isolation:
- DBS East and DBS West are both built concurrently;
- DBS East and DBS West are both built sequentially.

Based on these scenarios the project construction duration for the onshore component of the development is projected to be up to 4 years for depending on an in isolation/ concurrent build scenario, and 6 years for a sequential build scenario.

## Questions from stakeholders:

None

## 2 **S42 Consultation responses: PEIR**

Responses to Natural England (NE) and Environment Agency [statutory] S.42 comments were issued in advance of the ETG's. The Environment Agency comments relating to ecology were discussed at the Terrestrial Ecology ETG on the 11<sup>th</sup> December and summarised in the meeting for NE.

## **Environment Agency comments:**

- Confirmation ecological surveys were competed following early access issues.
- Recommended ECoW at the construction stage.
- Recommended pre -construction bird surveys during nesting season.
- Recommended pumps fitted with 2mm diameter mesh for over-pumping of watercourses where fish could be present.
- Recommended management should Invasive or Non-Native Species (INNS) be found on site and implementation of basic biosecurity measures involving plant and equipment brought from elsewhere. LG commented that there had been little evidence of INNS found through surveys.

LG



### Yorkshire Wildlife Trust comments;

- Expect ecological surveys and walkovers prior to work starting (e.g. badger walkover surveys, etc).
- Expect experienced ECoW and suggest reducing/minimising working corridor width.
- Primary concern is impact on nature conservation sites and potential impact upon FLL to protected sites. To be discussed later in the meeting.
- Clarification on BNG commitment.

#### Lincolnshire Wildlife Trust comments:

- Most comments related to Dogger Band SAC
- BNG: recommended detailed assessment, production of a biodiversity plan and minimum 10% net gain.

## Natural England comments:

- Made comments on specific surveys at PEIR stage which were incomplete at the time but are complete now.
- Functionally linked land, which is a small area to the south of the red line boundary (covered later).
- Bat survey methodology regarding how the transects were covered.
- Regarding geology and land quality: significant effects and methodology
- Land use and air quality comments had also been raised.

## **Terrestrial Ecology Baseline Survey Results**

LG presented results of baseline surveys with respect to the following and confirmed all surveys were now complete and access had been provided:

#### **Habitat Surveys**

- Headline figures of total area surveyed and % arable cover, using UKhab v1.1 which was updated in July 2023. (Discussed later in the meeting)
- Priority habitats by type, highlighting arable field margins and avoidance by design or using horizontal directional drilling (HDD) during construction - of other types listed in the presentation.
- 28% of hedgerows classified as Important under the Hedgerow Regulations 1997.
- Confirmed ECoW would be present during site clearance works.

#### Priority Habitats challenges

- Lowland fen (in poor condition, part of a larger fen and flooded), to be avoided by HDD, and
- Arable field margins

OC requested comment from NE. LS responded that NE would only be concerned if it was connected to a designated site e.g. a SSSI, which is not the case with the priority habitat. LG confirmed that there are no designated sites (statutory or non-statutory) within the route corridor. RT also confirmed that for river crossings there is a minimum stand-off depth between the bottom of the river channel and the top of the HDD (EA requirement) and that there should not be any hydrological/hydrogeological connectivity between the two.

#### Important Hedgerows

- 26-28% surveyed were considered important.
- Will be avoided by HDD where possible, and where not possible for approximately 1300m of hedges for the whole project, mitigation including



temporary translocation and minimising gaps to just the cable trenches and haul road.

OC requested comment from NE. LS/LF responded that NE would only comment If the hedgerows were connected to a designated site or support a designation feature. More of an area for the wildlife trust or council ecologist.

#### Bats

- Higher concentrations of bats around the River Hull.
- Most common species include common pipistrelle, soprano pipistrelle, Myotis sp.
- Main habitats include mature hedgerows, field drains, ditches, River Hull, and woodland edge. but specific construction control methods e.g. appropriate lighting, must be in place.
- Ground Level Tree Assessment: tree numbers and types presented.

No comments were made by NE.

#### Badgers:

39km corridor - main hotspot is to the East of the River Hull (rural location).

- No main setts adjacent to the corridor.
- Satellite setts identified.
- Surveys will be updated prior to the works to consider recent activity. Planning to be done 6 months before work starts.

NW: Advice: If circumstances changed and a main badger sett was to be opened, or one of the annex subsidiary setts enlarged to become a become a main sett and needed to be closed, there would need to be artificial setts provided and proof of use before the old one can be closed.

#### Riparian Mammals (Otter and Water Vole)

- Some evidence of water vole
- Little evidence of otter other than spraints
- HDD approach during construction will avoid most watercourses.

#### **Great Crested Newt**

- Large proportion of 126 ponds surveyed were temporary in nature.
- 11 ponds classed excellent or good using Habitat Suitability Index
- One pond within the site boundary, nine within 250m showed positive eDNA result.
- District Level Licencing preferred route for GCN

OC requested comment from NE. No comments were made.

## **Breeding Birds**

- Many species recorded; important species linked to wetlands around River Hull
- Marsh harrier presence near Lowland fen was highlighted.

## Wintering Birds

- Higher diversity of species including SPA citation species identified near River Hull and Skipsea beach.
- Typical non-exceptional species assemblages identified elsewhere within the onshore development area.
- ECoW works with specific methodologies recommended.



## Potential Functionally Linked Land (FLL):

- Only a small area south of the onshore development area falls within 10km of the potentially FLL area, habitat is mainly arable land.
- No desktop records of species associated with Humber Estuary SPA
- Overwintering bird surveys identified two bird species associated with the SPA in low numbers on single occasions.
- No breeding birds associated with the SPA identified.
- Overall conclusion that this area is not considered to be FLL.

#### OC requested comments from NE.

LS enquired about the methodologies and surveys undertaken, and frequency of visits. LG responded to check that NE had seen the survey reports previously issued including the Functionally Linked Land (FLL) Memo. LS confirmed they had seen some reports but possibly not on methodology. EB agreed they had had receipt of the functionally linked land assessment, but not the Overwintering Bird Survey methodology that informed it. LG confirmed monthly frequency of transect surveys from October to March including near the converter stations so had been extensive. EB responded that the breeding birds and the habitat survey reports had been received but not the overwintering bird reports. RT replied that they had been issued but may have been too large to receive by NE. Further baseline reports (e.g. bats, badgers) these could be supplied.

EB requested confirmation of the proposed use of the section of land that encroaches into the 10 km buffer of the Humber Estuary. AB replied that it was the onward cable routeing to National Grid and involved temporary works resulting in buried cables, with space required for topsoil stockpiles . LS and EB confirmed understanding. RT added that space in the Onshore Development Area included for overlap with National Grid's own plans for grid connections. LS noted that she would check whether the FLL Memo full information had been received by NE.

#### Species scoped out;

3

- Lampreys due to River Hull not being a hotspot and avoided by HDD.
- Reptiles and amphibians can be avoided through method statements and FCoW works.
- Terrestrial Invertebrates from desktop survey results, low distinctiveness of habitat and temporal nature of disturbance

OC requested agreement on species scoped out. LS responded that she wanted to review the (FLL) methodology before responding. [Post Meeting Note: the FLL note was issued and reviewed, comments received from NE on the 11<sup>th</sup> January 2024].

LG requested feedback on the baseline coverage. NW and LF responded positively.

EB wanted to check given that Spurn Point, which is part of the Humber Estuary designations, is maintained by a constant supply of sediment along the Holderness Coast and cofferdams can interrupt the coastal processes, would these impacts be addressed in the Environmental Statement? RT responded that physical processes modelling was assessing the worst-case scenario which is using the cofferdams.

EB pointed out that NE has concerns, certainly in combination with all the projects that are going along on along that coast are considered. RT agreed to check this was being considered and would confirm back to EB. [Post Meeting Note: Cofferdams being fully assessed in the coastal processes assessment]].

#### **Environmental Statement Progress - ECUS**



	No major changes to approach and mathedeless, but conturing design refuseres	
	No major changes to approach and methodology but capturing design refinements since PEIR. ES being updated with baseline results and impact assessment including development of a BNG strategy.	LG
	Cumulative Effects Assessment (CEA)	LG
	LG pointed out a large solar farm (Pear Tree Hill), located NE of Beverley was under consideration. RT explained it is another RWE joint venture, which is being addressed via HDD works under areas where there is interaction with DBS and is being assessed in the ES.	
	No further queries were raised by the ETG.	
4	Biodiversity Net Gain	TC
	TC covered the following points in relation to BNG, currently work in progress:	
	<ul> <li>No net loss to be achieved as a minimum, net gain targeted where possible.</li> <li>Baseline biodiversity units on site shown but to be refined using narrower cable route corridor.</li> <li>Total units and those units retained by HDD (orange bars) presented graphically.</li> <li>Statutory Metric used, new revised metric which will be used going forward does not change baseline values but will change creation/enhancement values.</li> <li>Lost habitats within cable route will be reinstated post construction. Estimated 30% loss in BDU/ha when recreating like-for-like post construction (c. 6yrs).</li> <li>MLWS baseline and impacts: Beach (EUNIS littoral mixed sediments and infralittoral fine sand) makes up the Littoral Sand within the Metric. No permanent works in the intertidal area aside from 6 cofferdams comprising c.0.1ha, construction materials for intertidal works to be brought in by barge.</li> <li>HDD proposed for majority of high value habitats, a number of hedgerows will be removed to facilitate access. Where we are unable to reinstate, then there'll be plans to enhance or create new hedgerows in other areas of the site.</li> </ul>	
	Lowland fen area surveyed.	
	TC requested comment on the scope. LS responded that as long as the correct metric was being used then the scope looked acceptable. LS was not aware of any imminent metric updates.	
	<ul> <li>Exploring options for on-site and off-site delivery:         <ul> <li>There are limitations over land use following reinstatement works post-construction. Work underway with landscape team to develop deciduous woodland and species-rich grassland, scrub, possible orchard.</li> <li>Biodiversity impacts on-site will mean net loss so off-site BNG is being explored. TC asked if the ETG knew of any enhancement schemes that could be supported.</li> <li>LS suggested liaising with organisations such as Wildlife Trusts, RSPB, and the Humber Nature Partnership. LF added that it depends on what units and habitat types are being created. TC stated the intention to liaise with the Environment Bank, and with Jennifer Woollin at ERYC, about potential opportunities.</li> <li>Overall the expectation is that BNG going to be comprise a</li> </ul> </li> </ul>	
	combination of wetlands, grassland and woodland habitat types.	



	LG queried if Natural England knew the status of the local nature recovery strategy.  LF responded that it was still being drafted but would ask for any updates.	
3	Other S42 responses	RT
	Chapter 12: Land Use	
	RT asked whether NW had comments regarding the written response provided to NE in relation to Land Use, the main comment being regarding agricultural land classification (ALC) surveys. NW responded that there were various responses from NE colleagues. One response confirmed that works were not likely to impact Withow ap SSSI. On agricultural land the general advice was to get the soil surveys done as soon as possible to inform all future decisions [Post Meeting Note: Response issued on the $11^{th}$ January].	
	RT noted that soils surveys were going to be carried out but would not affect the outcome of the [Land Use] ES chapter given it has still assessed the worst case in terms of ALC grade.	
	Public Rights of Way:	
	NW noted that NE had some comments back from colleagues on public rights of way and access for the coastal path as well but needed to come back on them. RT responded to NW that a PRoW and Access ETG had been held earlier in the day and that ERYC had provided feedback on the Public Rights of Way Management Plan and effects on the coastal path. It could be made available to NE if they wished to review it.	
	NW mentioned that if the coastal path was already an operational or an open stretch, there was a standard set of advice that that Natural England could provide. If it's a stretch that's in development, the central team would coordinate with the local area team to ensure appropriate measures were in place.	
	RT responded that If there are any standard measures required from NE they could be incorporated into the Management Plan.	
	Air quality comments:	
	NW deferred to LS with respect to air quality comments. LS needed to liaise with a colleague (Amanda). RT queried if it related to use of JNCC Guidance as it was important to agree the use of that approach. LS agreed to chase Amanda on that and on the requirement to develop a Port Traffic Management Plan. RT stated a response on these issues would be helpful in updating the ES.	
	LS advised with regard to non-mobile machinery that a detailed assessment should be provided when impacts in proximity to (within 200m of) a designated site are likely. Burton Bushes SSSI was a potential receptor. LS however accepted that it might be a bit early at this stage. RT requested whether NE could state this in writing as it was not clear whether this was currently intended.	
	LS also noted that where locations of backup generators was not known, worst-case assumptions should be used in any modelling.	
	Landscape and Visual:	
	RT noted that an LVIA ETG was being set up with ERYC and requested whether NE wished to attend, however, it was emphasised that views would not be impacting any areas of outstanding natural beauty. LS thought attendance was likely not required.	
	RT highlighted that ERYC would be employing a specialist landscape advisor. <i>Post meeting note: LVIA ETG held on 26/01/24</i> . LS asked whether the LVIA ETG focus was likely on local landscape impacts, RT agreed that it was and reiterated the lack	



	of impact on offshore and onshore landscape designations. RT mentioned a moderate adverse impact at the Butts Farm campsite and Bentley village, but otherwise no long range impacts were identified.	
4	AOB  OC summarised the next steps in updating and finalsing the ES in 2024, taking account of ETG feedback.  Another ETG is planned prior to DCO submission so will be in contact for a date (targeting February/March 2024)  LS not they would respond after the meeting with further comments on S42 responses.	OC
Action ID	Action	Owner
1		
1.	Arrange a date with stakeholders for the next ETG.	OC
2.	Arrange a date with stakeholders for the next ETG.  Chase at NE on issues regarding air quality and requirement for Port Traffic Management Plan.	OC LS
-	Chase at NE on issues regarding air quality and requirement for Port Traffic	
2.	Chase at NE on issues regarding air quality and requirement for Port Traffic Management Plan.  Confirm to NE if Spurn Point is included in offshore sedimentary processes	LS

**Appended Document** 



## **Minutes of Meeting**

Meeting with:  Location:		<b>Number: 005014166-</b> Pre-submission Offsho		
	DBS	Pre-submission Offsho	re Archaeology FTG M	
Location:			retricellacology Eren	leeting
Location.		Online - Microsoft Teams		
Start Time of Meeting:	10am	<b>Date of Meeting:</b> 14 <sup>th</sup> December 2023		
Attendees	Initials	Role	& Organisation	
	VB	Principal Archaed	ologist, Royal Haskonii	ngDHV
	AH	Science Ad	visor, Historic England	k
	SC	Marine Planning Unit (Marine licensing), Historic England		
	DB	Offshore Consents Manager, RWE Renewables		
	HP	Consents Manager, RWE Renewables		
	RF	Senior Environmento	al Consultant, Royal H DHV	askoning-
	SB	Graduate Environmental Consultant, Royal Haskon- ingDHV		
	• Pi	roject design update	since PEIR stage	
	• Se	Seabed Features Assessment		
Meeting Agenda/ Objective(s):	• Po	Palaeolandscapes assessment		
	• W	ritten Scheme of Inve	estigation (WSI)	
		AOB		
Item	Descr	iption/ Discussion		Presente

Item	Description/ Discussion	Presenter
1.	Project design update	DB
	<ul> <li>The Project: Update (see slides for diagrams and figures)</li> <li>Two windfarm sites – located adjacent on Dogger Bank: DBS         West and DBS East.</li> <li>Co-located offshore infrastructure.</li> </ul>	
	Both are expected to connect into a new National grid substation.	
	Status:	
	<ul> <li>PEIR consultation feedback received in July.</li> </ul>	
	Consultation started in June.	
	Drafting ES Chapters.	
	<ul> <li>Wessex Archaeology assessment reports are in review.</li> </ul>	



 Awaiting final logs from geotechnical surveys taken over the summer in order to complete Stage 1 geoarchaeological assessment.

#### Indicative Programme:

DCO - May 2024 (previously March 2024).

Examination in 2024.

Consent decision in 2025.

Offshore construction to commence 2026-2029/2029-2032.

Operation 2028 or 2032.

Onshore construction 2026.

## 2. **Seabed Features Assessment**

The archaeological assessment report authored by Wessex Archaeology was provided to Historic England prior to the meeting. SC confirmed that he had reviewed the report and that a formal response would be provided following the meeting.

The objective of the agenda item was explained i.e. to provide an opportunity to discuss any queries concerning the 'proportionate' approach to archaeological assessment which had been proposed and discussed at previous meetings ETG meetings (and as detailed in the assessment report).

A summary of the approach to geophysical survey and 'proportionate' assessment and an overview of the results was provided by VB. In summary (see slides for details):

- All data were reviewed but not all data was reviewed in its raw format
- Sidescan Sonar (SSS) data were reviewed as processed mosaics (both low frequency and high frequency) with a subset of raw data reviewed as a check measure and where greater resolution was warranted e.g. wrecks and associated debris fields)
- Multibeam Bathymetry (MBES) data were provided gridded at 1.0m and analysed using 3-D visualisation
- Anomalies picked from the SSS mosaics and MBES over 5m in any one direction were included in the gazetteer
- Magnetometer (Mag) data were gridded to produce a map of magnetic anomalies.
- Mag anomalies below 20 nanotesla were excluded from the gazetteer
- The nearshore section of the export cable route was progressed as a full 'raw' assessment (SSS, MBES, MBBS and Mag)
- No thresholds for anomalies reviewed in raw SSS

SC stated that whilst Historic England had no major concerns over the approach, sufficient detail would need to be provided in the Environmental Statement (ES) on why the approach was selected.

VΒ



VB confirmed that the limitations and risks of the approach are discussed in detail in the ES chapter. The risk that smaller anomalies might not have been included in the results is acknowledged. However, high level characterisation surveys which provide context for EIA will be followed by detailed assessments undertaken before the construction phase to provide greater resolution to support effective mitigation (i.e. avoidance or further recording).

SC acknowledged the project scale and the vast amount of data and that the proportionate approach provides a reasonable idea of what might be out there which would be backed up, and the approach tested, by subsequent high resolution assessment. Post consent ground truthing will also help pull together and verify the results.

VB described how the approach taken to assessing cumulative effects has enabled comparison of the results with publicly available results from other projects where the areas overlap. This has shown that none of the anomalies from the different assessments match. There are no wrecks (or Archaeological Exclusion Zones (AEZs)) in the overlapping areas which would have been picked up and is potentially indicative of different line spacings (Hornsea 4 for example had wider line spacing) rather than a reflection on the quality of the data or assessments. This highlights the importance of pre-construction, high resolution assessments.

SC stated that comments on the assessment report may fall outside of Historic England quote for pre-application advice and DB confirmed he would pass this on.

VB confirmed that comments received from Historic England would be incorporated into the ES chapter or assessment report accordingly.

## 3. Palaeolandscape Assessment:

The Palaeolandscape assessment report was not provided to Historic England prior to the meeting as the final draft was not yet available.

VB explained that Wessex Archaeology had acquired Kingdom Software to support their palaeolandscape assessments and production of ground models and that this had been used (by Andy Emery, Palaeolandscapes lead at Wessex Archaeology) for the assessment of Ultra High Resolution Seismic data from the array. The export cable route assessment was progressed using CodaOctopus Survey Engine using the sub-bottom profiler data.

A summary of the results was provided (see slides for details) identifying four stages of palaeolandscape development interpreted by Wessex Archaeology from the data:

Stage 0 - subglacial tunnel valleys

VΒ



- Stage 1 development of channels and basins (delta-top distributive channels formed during Marine Isotope Stage (MIS) 5, or fluvial channels incised during subsequent subaerial exposure)
- Stage 2 further development of channels and basin features, and also bright reflections associated with late Pleistocene and Holocene- deposits.
- Stage 3 -mounds, clinoform wedges, palaeochannel infill and bright reflections

VB also confirmed that geoarchaeological samples retained from the array containing wood and organic matter (of interest) had been retained from previous geotechnical surveys, but that the vibrocores and boreholes from the export cable route had not picked up any deposits of interest. The 'archaeology only' core from the export cable route had not yet been split and recorded. VB also confirmed that RHDHV are waiting for the final logs from Fugro to inform the Stage 1 geoarchaeological assessment report and that this report would be submitted as an appendix to the ES chapter. This Stage 1 report will set out the objectives in line with Wessex Archaeology's palaeolandscape assessment.

As there is only one sample of interest, the potential for storing this core and taking assessment forward post-consent was discussed. AH confirmed that Historic England were content that the next stage of assessment and analysis could be postponed and taken forward in line with the next phase of geotechnical survey and that they would be happy to wait until DCO to review the supporting documents.

SC queried if there had been had there been any development with data sharing produced by adjacent projects? VB explained that obtaining the GIS (to map alongside ours) has proved more complicated, due to different developers working at different stages of development, thank helped. However, discussions with the Dogger Bank Projects and Sofia have been held regarding a wider Dogger Bank Palaeolandscapes study and the potential for DBS to feed into this following DCO submission. A commitment to future data sharing is included in the WSI for DBS.

DB the aspiration is to use data to get as much out of it as we possibly can, but there can be sensitivities around sharing particular types of data across projects.

AH was content that this data Sharing aspect is being considered now for future reference.

4. <u>WSI</u> VB

VB suggested that, as the WSI adheres to the standard approach and follows The Crown Estate Guidance, there was no intention to share the WSI with Historic England for review before submission.

VB also explained that the WSI includes additional focus on which activities take place at each stage (see slides for details). Included at all stages is the opportunity for data sharing to help better collaboration between



	developers/developments, and between the development and academic sectors.	
	SC approved of the emphasis on activities by project stage and on data sharing and confirmed they were happy to review the WSI alongside the other submission documents.	
5.	AOB N/A	
6.	Next steps: Currently finalising the ES chapter. Action: will update chapter and WSI based on this call.  - Waiting for completion of excavations at the landfall to inform consideration of the intertidal zone and nearshore archaeology. An interim report on this is expected January.	VB
Action ID	Action	Owner
1	Update chapter and WSI based on this call.	VB
2	Chase Fugro for final logs - Log made available to RHDHV	DB
3	Stage 1 geoarchaeological assessment report	VB



# **Minutes of Meeting**

Human Health ETG Meeting					
<b>Document Number:</b> 005011351-01					
N	Meeting with: Human Health ETG				
	<b>Location:</b> Online - Microsoft Teams				
Start Time of Meeting: 10am Date of Meeting: 19 <sup>th</sup> December 2023		19 <sup>th</sup> December 2023			
Attendees		Initials	R	ole & Organisation	
		SB	Graduate Env	ironmental Consultant, RH	IDHV
		OC	EIA Project Manager, RHDHV		
		RP	Human	Health Impact Lead, RPS	
		LT	Onshore	e Consents Manager, RWE	
		OU		lealth Security Agency	
		LF	, ,	ector of Public Health, ERY	
		AN	Lead on Health and	Wellbeing, Department of Social Care	Health and
	Apologies	Initials	R	ole & Organisation	
			Project Director, RHDHV.		
ND Onshore EIA Led		nore EIA Lead, RHDHV			
	AK Director of Public Health, East Riding of Yorkshire Cour			nire Council	
Meeting A	Meeting Agenda/ Objective(s):		<ul><li>Project design upo</li><li>Human Health ove</li><li>ES Method Recap</li><li>Update on assess</li><li>AOB</li></ul>		
Item		Desc	ription/ Discussion		Presenter
		ed themselv	ves and their role in rela tives of the meeting wa	ation to the projects. An as provided.	OC/LT
1	Project Overview  LT gave attendees an overview of the projects.  There are two offshore wind projects - DBS East and DBS West. Together they form the Dogger Bank South (DBS) Projects. The wind turbines are located 100km offshore. One the works are complete, in total the Projects will generate 3GW of power, sufficient to generate electricity for around three million homes. Onshore and offshore electrical infrastructure will be co-located.  Attendees were shown a plan with the frozen design of the onshore cable corridor from the landfall point near Skipsea to the national Grid Birkhill Wood Substation.		LT		



#### Onshore aspects

Attendees were made aware by LT that the design will use High Voltage Direct Current cable in the corridor. This change allowed the corridor footprint to become narrower at a width of 75m and a width of 90m for complex crossings.

#### Converter station sites

LT gave attendees an update on the converter station site selection, specifically, that after the Section 42 consultation it was decided to co-locate the two HVDC converter stations (maximum building height of 24m) on Zone 4 (north of Bentley village).

#### Status of applications and associated documents

LT outlined the current status of the projects. Following feedback received from the PEIR consultation some amendments and refinement to the Red Line Boundary have been made. Design has been frozen incorporating feedback from statutory consultation in October 2023 – targeted consultation commenced 13th November. The project design envelope was frozen in early December 2023 for the purposes of the DCO submission and ES chapter drafting is in progress.

#### Indicative programme

LT also specified key dates from the indicative programme. The project is progressing towards the next milestone, preparing the DCO application for submission in May 2024. Examination is expected to be completed in 18 months. A decision is therefore expected by approximately November 2025. Based on these predicated dates, the earliest construction start date would be in 2026, with a view to first operation in 2029.

#### Key decisions

LT described the key decisions that had been made prior to the design freeze, which included landfall site selection, using HVDC technology, converter station site selection, and commitments to minimise impacts such as sharing haul roads and other temporary infrastructure between DBS East and DBS West.

#### Cable Routing

LT showed attendees the changes to the cable corridor route. This included a change around Nunkeeling and Long Riston, due to heritage assets and sand and gravel deposits, respectively.

#### Development options

To end the project overview, LT explained the different development scenarios that will be proposed in the DCO application, which included:

- DBS East or DBS West is built in isolation;
- DBS East and DBS West are both built concurrently;
- DBS East and DBS West are both built sequentially.

## Comments from stakeholders:

AN queried whether, due to general windfarm development locally and the level of cabling required onshore, there had been consideration of sharing other aspects with other renewable energy schemes.

LT responded there are difficulties in doing that ie sharing cable alignments or running parallel, given the timing of other as yet unconsented projects and spacing that's required between them. At one point RWE did look at sharing the same landfall as Hornsea Four, to keep impacts in one place, but was difficult because of site constraints which indicated benefits were not possible. However

LT



RWE was working with other developers, especially when DBS was entering the planning system soon after other projects. Hornsea Four project was consulted when working around some of the footpath diversions. LT acknowledged that it is a very constrained area, particularly with the National Grid connection where multiple projects are trying to link into it, also working around other schemes such as the nearby solar farm.  AN asked whether these local issues/constraints would be reported in the consideration of alternatives in the ES. LT confirmed there was an ES chapter that addresses this. OC added that a number of engineering and other	LT
constraints, including other consented schemes had been considered in line with the requirement of EIA legislation.	
No further comments made by stakeholders.	
RP presented a summary of the Human Health ES Chapter progress.   No significant adverse population health effects are anticipated.   The Scoping Opinion confirmed which aspects of human heath to focus on and the methodology.   The PEIR report provided a draft assessment. has been updated via checks on the baseline and relevant scientific literature, taking into account the consultation feedback.   The Human Health chapter takes into account updated ES Chapter assessments (such as Noise, Air Quality and Transport).   It is estimated that by January 2024 there will be final draft conclusions to discuss.   Comments from PEIR     Feedback received from UKHSA/OHID provided on scope and methodology from the Scoping Opinion.   East Riding of Yorkshire Council public health team: no S42 response. RP referred to public rights of way (PROW): several local community groups wanted the reassurance that there would be no closures public rights away for long periods of time, which from a public health point of view would be problematic in terms of behavioural change. RP explained that there are some small diversions and temporary closures, but would be appropriate, signposted and not permanent.   There will be appropriate diversions signposted to help avoid this issue.    - Footpaths will be restored post-construction.    - Short term temporary closures would be two months maximum. There will be a Public Rights of Way Strategy, which will help explain where the construction vehicles and the public rights of way come into contact, and how that will work in practice. The health assessment will make recommendations around, for example, access inequalities, mobility, and sensory needs. OC requested comments on the approach. No further comment was made by stakeholders.	RP



RP requested whether stakeholders agreed with this approach. Guidance documents could be supplied for reference. LF agreed the guidance was appropriate and useful to have a copy.

RP

#### Study area:

RP noted there are site-specific ward areas, local authority areas and the wider Yorkshire and Humber regional area, and then nationally.

Specific Wards are split into groups reflecting the landfall, cable corridor and converter station areas assessed.

OC requested whether the study area was sufficient. LF commented that particular focus was on coastal communities and some of the issues that they already face around the wider health determinants, and accessibility in the rural location they live in. Accessibility to healthcare services was an issue.

RP acknowledged the issue and noted positive features of the way in which the project is being delivered, ie horizontal directional drilling under roads rather than closing them and trenching through them. Transport implications from construction are therefore strongly mitigated.

RP confirmed use of the lower layer super output area deprivation ward data and if it is close by or only partially intersected by the red line boundary then the ward is included as reflective of the more deprived population.

No further comment provided by stakeholders.

#### Construction and Decommissioning

RP noted the Scoping Opinion provided commentary on the proposed assessment scope and the methodology was unchanged since PEIR stage. Health determinants and effects, drawn from other ES Chapters, were summarised.

- Physical activity, open space and leisure
- Transport modes, access and connections: cycle routes and pedestrian footpaths.
- Air quality dust effects, and also some vehicle and plant emissions.
   One comment from Natural England regarding back-up generators air quality implications of those were being taken into account, however they would not be operating frequently so the implications for public health would be limited.
- Water: comments regarding onshore surface waters and the coastal marine environment – horizontal directional drilling techniques used rather than just digging absolutely everything up helps avoid disturbing the water quality.
- Soil contamination was originally scoped out. The site area will be managed and controlled, and appropriate safety PPE will be worn by workers.
- Noise: Construction, related to drilling and drilling activities. The Code of construction Practice manages effects.
- Workforce upskilling/Employment and investment consideration of possible opportunities from a public health point of view.

Decommissioning - the expectation is that the effects would be lower, smaller in terms of the adverse effects than those of construction, and decommissioning would occur in line with regulation and requirements at the time.

AN asked that whilst workforce numbers were not likely to be large and given the numbers of other schemes around, had this been assessed? RP responded that



this had reviewed in detail, and the expectation around the workforce is that people will have their NHS entitlements, and there is not anticipated to be a large in-migration of workers. The cumulative assessment will consider other projects, but it is hard accurately determine cumulative workforce demand. Each project will manage their own workforces. A wider assumption is that a high proportion of the workforce is likely to be drawn from the regional area, as is likely for other projects. There should not be significantly greater pressure because of this.

LF noted that there will be some consideration around the additional impacts of tourism during summer months (including in the coastal area) when there is an increased workforce and increased tourism pressures locally. RP agreed and noted that tourism impacts and the potential for significant effects are is addressed in the Socio-economic ES Chapter (as well as Tourism and Recreation ES chapter). RP noted that caravan sites, holiday parks etc are important elements to the local economy are taken into account. LT highlighted that a Skills and Employment Strategy, including apprenticeship schemes and community benefit packages, was an accompanying DCO document being worked on and that RWE has a good track record in this area. Further information could be provided.

RP requested confirmation of agreement with the construction and decommissioning scope. No further comment was made by stakeholders and the scope appeared to be agreed in principle.

#### Operational assessment

RP summarised the operational scope of health effects, which was unchanged since the PEIR stage:

- Noise disturbance was not fully assessed at PEIR stage but will be covered in more detail in the ES.
- Public concern and understanding of Electromagnetic Frequency issues: mainly negligible from a Health Protection point of view and the project is aligning with the International Commission for non-ionizing Radiation protection 1998 guidelines - which aligns with the National Policy Statement for power lines approach. The actual risk is mitigated for: RP noted it was positive that there were no concerns raised at PEIR stage.
- Climate change: The project is a renewable energy scheme so beneficial.
- Workforce upskilling: Skills strategy will be an ongoing element into operation.
- Employment and investment
- Wider societal infrastructure: capturing the importance of energy security and how the Projects contribute significantly to it.

RP: requested agreement with the scope of operational effects.

No further comments were received and the scope appeared to be agreed in principle.

## <u>Cumulative Effects Assessment</u>

RP presented an example of in-combination effects assessed from the Noise ES Chapter to show these types of issues will be informing the final assessment. The reduction of impacts to PRoWs since PEIR stage was also highlighted. Operational noise impacts were presented to show the limited noise receptors near the substation zone.

OU noted that UK HSA has an in-house noise team; and requested whether information could be provided. RP responded that there is a Noise and Vibration

RP



	ETG specifically, and that the Noise ES Chapter was informing the Human Health ES Chapter.  Other examples: montage viewpoints from the LVIA were presented.  Update on assessment: Human Health chapter.  RP presented the list of ES Chapters informing the Human Health Chapter and reiterated use of the IEMA methodology to explain the public health implications.  RP highlighted that the ES Chapter will likely conclude that are minor adverse population (non-significant) health effects and significant beneficial population health effects relating to energy security and public health. Further consultation with the ETG could be undertaken in early 2024 to share assessment conclusions.  Next Steps:  Ongoing assessment Reviewing and updating the ES Chapter Considering further opportunities for targeting training and employment opportunities ES to be submitted in May 2024 with the DCO submission. An update ETG meeting in February/March 2024 could be held if considered useful.	RP
3	AOB  OC requested any more comments or AOB. AN had no comments. OU noted that all was in line with expectations but could not formally agree without further internal discussions. The presentations slides and minutes were requested. OC confirmed these and an Agreement Log would be issued. OC closed the meeting.	OC
Action ID	Action	Owner
1.	Issue ETG presentation slides, Health assessment guidance, meeting minutes and Agreement Log.	OC
1.		OC RP



# **Minutes of Meeting**

Pre-ES Marine Mammals ETG					
Document Number: 005014167-01					
Meeting with:	Marine Mammals ETG				
Location:		Microsoft Teams			
Start Time of Meeting:	10:00	Date of Meeting:	Date of Meeting: 15/01/2024		
Attendees	Initials	als Role & Organisation			
	PC	Marine Lead Advis	sor, Natural England	d (NE)	
	RP	Marine Lead Advis	sor, Natural England	d (NE)	
	CO	Senior Marine Speci	ialist, Natural Engla	nd (NE)	
	EJ	Marine Senior Advi	isor, Natural Englan	d (NE)	
	ZT	Marine Licensing	g Case Manager, Mi	MO	
	LC	Marine Licensir	ng Case Officer, MM	10	
_	RFA		Cefas		
	RR		MMO		
_	DB	Offshore Consents N	Manager, RWE Rene	ewables	
	AC	AC Offshore Consents Lead, RWE Renewables			
_	HP Consents Manager, RWE Renewables				
	RFO	O Senior Environmental Consultant, RHDHV			
	SB		als Consultant, RHD		
_	AS		ntal Consultant, RH		
	MK		r, Natural England (I	NE)	
Meeting Agenda/ Objective(s):	• Pr	Significant impacts in the Cumulative assessment Preliminary RIAA Assest SIP MMMP In-Principle monitoring OB	he ES It and population mo Isment results	odelling	
Item		iption/ Discussion		Presenter	



Welcome and Introductions	RFO
RFO introduced herself and welcomed everyone to the meeting. She advised that the objectives for the meeting were to present updates to the project and timeline, to give an overview of the current findings from the draft ES and the RIAA and to present considerations for the draft SIP an MMMP.	
Project Update (see slides for diagrams and figures)	AC
<ul> <li>Two windfarm sites - located adjacently on the Dogger Bank: DBS West and DBS East.</li> <li>Co-located offshore infrastructure where possible</li> <li>Looking at connecting into new National Grid substation located in Creyke Beck.</li> <li>Both Projects being constructed, either concurrently or sequentially will be assessed as a worst case as part of the ES.</li> </ul>	
<u>Current Status</u>	
<ul> <li>PEIR Consultation feedback received July 2023.</li> <li>ES Chapter and RIAA drafting commenced.</li> <li>Site-specific modelling commenced.</li> </ul>	
Project Timeline	
<ul> <li>DCO application date pushed back from March 2024 to May 2024. Remainder of dates have not moved.</li> </ul>	
<b>To Note:</b> MK: A total of eight offshore windfarms are due for submission in Q2 of 2024. Specialist resourcing from NE will be stretched to service operations.	
AC: RWE have spoken to NE previously regarding this and will try and close out as much as possible before submission. RWE are meeting with the ETG Steering Group over next couple of weeks and stakeholder engagement program will be reviewed to try and plan accordingly. If there is anything else we can do or provide to help alleviate this please let us know,	
Marine Mammals Update	SB
Summary of densities (see slide for summary table)	
<ul> <li>The site specific densities are for the full TCE Lease plus 4km buffer, and the seal Carter densities are for the original array areas with the new refined array areas using the same grid squares so no change.</li> <li>For common dolphin we used Waggitt densities of the SCANS NSC block as this represents the highest density.</li> </ul>	
PEIR comments	
<ul> <li>We noted that the MMO didn't agree using TTS thresholds as a proxy to assess the potential for disturbance so for the ES we used the 30km impact range from Richardson et al.</li> <li>We used TTS for the underwater noise monitoring for dolphins.</li> <li>Any comments or advice on this?</li> </ul>	



RFA: Cefas would prefer to use the recommended guidance as porpoise sensitive to noise. A precautionary approach would be to avoid using TTS threshold, any other approach would be acceptable.

SB - Dose response curve not available for every species.

## Significant impact results in the ES (see draft impact results from the ES table in slides)

- Impact 1 is major adverse for HP, MW and GS, minor for all other marine mammals and HS for concurrent piling. TTS Major adverse for GS for concurrent.
- Impacts 2 -6 minor adverse.
- Impacts 7-9 negligible to minor adverse.

## **Cumulative assessment and population modelling**

Marine Mammal Cumulative Assessment Approach

- Management units of species included used to screen for projects and plans within the NS MU or Greater NS area (to provide realistic yet precautionary list.
- Information gathered includes densities of each species, impact ranges number impacted and number of individuals at risk of disturbance.
- Slide lists all projects and activities that make noise and have the same activity dates as DBS.
- Information can be gained regarding offshore windfarms and marine renewables from their reports or generic assessments.
- Mainly speculation for geophysical and seismic surveys and UXO clearance as no information for 2027 available yet. No licences that overlap at present but there is potential for this to happen.
- 6-month cut-off date for new baseline information and cumulative project information to ensure sufficient time to undertake required assessments.
- See slide for impacts screened in.

Draft Cumulative Screening/Modelling- (see slide for table and graphs)

- Population modelling used for all species where parameters were available (stable and declining population).
- Modelling has been done for both the DBS Projects sequentially (worst case) and concurrently.
- Project parameters will be used wherever available.
- Threshold of additional 1% annual decline will be used to determine whether the results show a significantly disturbed population.
- Examples show HP and GS no significant difference.

## Question

CO: If cumulative assessment and including other projects, no impact after 2031, need to go up to 2035?

SB: The numbers in tables breaks this down rather than in charts.

AS: the tables give the population effect yearly to 2029 and then in 2032 when piling has ceased. The ES gives a breakdown of the population



modelling over 25 years including at 6 year mark to represent a conservation status period.

#### Post meeting note:

The information we have available for the projects screened in predicts that piling will finish in 2031. Modelling has been undertaken until 2052 (rather than the increment shown on the slide).

Draft results from CEA (see table in slides)

- Underwater noise from piling at other OWFs, major to minor adverse.
- Disturbance from other industries and activities, negligible to moderate adverse.
- Other impacts are minor adverse prior to mitigation.

## Draft results from cumulative modelling

- For all species assessed, the modelled impact of piling from the Project falls below the threshold of a 1% decline in population, which is considered insignificant.
- The greatest impact of cumulative disturbance occurs for minke whale, with a predicted 4.82% decline in population size over a 25-year period; but falls below the 1% annual decline mark.
- The population consequences of disturbance has been assessed as negligible for all species, with exception of minke whale with a magnitude of low.

#### Significant impacts in ES

- Cumulative Impact 2 Assessment of disturbance from other industries and activities – moderate adverse for grey seal –7% DBS West – 13% both projects together.
- A lot is speculation as can't accurately predict when UXO etc will happen.

SB: Population modelling will only be taking place for piling.

## **Preliminary RIAA Assessment results**

- SNS SAC project alone no adverse effect, in-combination exceeding thresholds (SIP will ensure there is no adverse effect).
- Humber Estuary SAC overall no adverse, TTS from piling potential adverse effect, in-combination – potential adverse effect (population modelling being undertaken).
- The Wash and North Norfolk coast SAC & Berwickshire & North Northumberland coast SAC – project alone no adverse effect, incombination – potential adverse effect (population modelling being undertaken).
- Moray Firth SAC project alone no adverse effect, incombination - potential adverse effect for construction vessels.



Significant impacts in the RIAA (see table in slides)

- Projects alone do not exceed thresholds.
- Having high order clearance for 183 days over whole season worstcase and very unrealistic. We are aware MMO would never allow so many high order UXO activities at the same time.

#### Question

SB: Is there a more realistic number of days we should be using to calculate this?

ZT: RR is going to join shortly to answer this.

MK: I have a general point on SIP issue. We have had two summers now working on process where we have been pretty close to thresholds so although you may think this is precautionary, thresholds are close to getting breached. Levels of activity are only likely to increase. By time SIPs are coming to MMO it is too late for offshore windfarms to commit to things like NAS. There is general concern that the current approach not going to hold for next Summer, approach NE is backing is for developers to commit to NAS upfront rather than to a menu of options. Test is to rule out adverse effects rather than risk based judgement and if measures in the SIP not needed that is fine, can remove. This is likely to be our advice going forward.

RR: I agree to think about NAS as a solution now. In 2021 there were piling campaigns and free UXO campaigns. We have had to heavily mitigate UXOs. Likely there will be a future limit on Projects of only three high order detonations. Don't know if this will change, there will be a lot of industry discussions. Beneficial to discuss procurement and requirements as may cause delays.

AS: RHDHV have been having regular ongoing discussions regarding this throughout the entire team.

RR: Investigation needs to be done before clearance under a separate Marine Licence.

AS: We are aware of new draft UXO guidance from the JNCC. Going forward should we be looking at assessing 90 % low order and 10% high order?

RR: The policy is looking to push low order. Need to continue to assess high order as a worst case, but if everything is high order in practice you are probably going to have problems.

AS: There are large campaigns that have all been low order. Thank you for your feedback.

EJ: We wouldn't support worst case assessment with a high percentage being low order and smaller high order. The evidence base isn't there to support low order being successful yet. Campaigns that have included low order as the primary method have ended up using high order for every clearance. NE's recommendation is to assess high order as a precautionary worst case.

AS: There was a Scottish campaign UXO clearance all using low order accepted recently.



MK: Anything done to cite this campaign would be great. We need to find out what the factors are.

EJ: Has there been a close out report submitted for this campaign?

AS: This is expected.

EJ: Any evidence you can provide of other campaigns that have been successful with low order would be appreciated, but there will still need to be contingency of high order assessed as the WCS.

AS - Would you prefer the WCS to be the higher order option?

EJ-Yes, that needs to be the assumption.

Significant impacts in the RIAA cont.

- Humber Est SAC the project effects that exceeds the 5% temporary threshold.
- Auditory injury 6.11% exceeds just on export corridors.
- Pin piles slide back said cable corridor but should be offshore dev area – DBS is less than 5%
- Density estimates for grey seal much higher in cable corridor than array areas.
- Disturbance exceeds, cumulative impacts high aswell.
- Can't incorporate TTS only look at disturbance all prior to mitigation. Offshore cable corridor discussion over additional mitigation.

#### Question

AS: Any comments regarding addressing this?

AC: Switching platform potential scenario assessed as worst case. This platform could be located either within the Array Areas or along the Export Cable Corridor. The Export Cable Corridor location has been assessed as a worst case.

MK: I am surprised at the predicted impacts on this slide, i.e. 51.7% of Humber seals impacted. How have the values come up, what assumptions have been made?

AS: Carter specific densities calculated for the area covering the export cable corridor cover grid for DBS East and West and combined. Worst case from cable corridor highest density are of effect of population modelling – four pin piles installed over 24hrs at each of the three different locations (i.e. using three vessels) DBS Array Areas and the cable corridor There will be no concurrent piling of monopiles in the offshore export cable corridor, with the Array Areas, therefore the worst case numbers have reduced significantly. Assesses against update 2022 updated Humber Estuary.

MK: Would like to see this written down - we request a method statement is provided. Sounds like extrapolating densities from near shore to offshore realm.

AS: Grid square densities – close to SAC higher densities, so further away reduced. End up with average higher than further offshore, highest density applied as worst case.



MK: Not realistic worst case so worth exploring, worth looking at other approaches. Could commit to not undertaking certain activities. Or locate the ESP within the Array Areas. Avoid impact rather than mitigate. Figures seem high. Hornsea 4 not dissimilar so may be worth looking at to see how handled it.

MK – Mitigation would be an obvious thing to not do at the same time. Then locate non – array structures further offshore, this would also help with the Red Throated Diver issues.

AS – General disturbance looking at EDR hasn't been flagged so will review this retrospectively.

AS: Will have a look. Some assessments don't represent TTS. Potentially it is the metric used.

SB: TTS ranges are quite high, but at some point, impulsive sound will turn in to non-impulsive sound, less of concern. Kurtosis method not incorporated into these ranges; no literature published yet but is being developed.

RFA: We are awaiting this but no definitive guidance yet.

#### SIP

- The SIP outlines approach and will set out the mitigation and management options to be used based on the assessments of piling.
- Allows most appropriate measures to be put into place based on the final Projects' design, latest assessments and best practice.
- When SIP is finalised, sufficient mitigation will be in place to ensure that none of above thresholds will be exceeded.

#### **Outline SIP**

- The assessment to inform the final SIP will consider, type of pile, whether NAS will be included, number of piling locations and distance between multiple piling locations in 24hr period and number of days of piling in summer season.
- The process of finalising the SIP will include consultation with the MMO and Natural England.

#### Potential mitigation

 Potential mitigation measures include spatial measures and temporal measures, noise abatement systems, different foundation and installation methods and remains flexible for any future mitigation options which are not currently known/available.

#### **MMMP**

- Minimum size areas have been derived from underwater modelling – requires adherence to JNCC guidance e.g. PAM, ADD, soft-start and ramp-up.
- Additional measures to be discussed.



Separate MMMPs will be produced for piling and any UXO activity.

## Inputs to In-principle monitoring plan

 One comment about how sound propagates been in discussion long distance monitoring not just 1km.

#### Question

SB: Is there any guidance on the in-principle marine mammal monitoring plan requirements?

EJ: We would expect focus on validation of the impact assessment. Typical underwater noise in-principle plan / monitoring conditions are useful but separate from monitoring in the in-principle plan. The harbour porpoise is mobile so tricky. Stay away from purely strategic measures. Defra is looking into initiatives for monitoring harbour porpoises. Will take away and see what advising on other projects.

AS: We could do with looking at this soon to give project teams heads up what might be coming for planning.

EJ: We will come back with something on this in writing.

#### **Questions (see slide)**

All questions addressed throughout presentation.

**AOB** 

RFO

NE comments on the MMMP (written response will be provided approximately 2 weeks after the ETG)

- 1) That if a pause in piling of more than 10mins would continue this is against JNCC guidelines, and we would not recommend. If you do go against these, we recommend full justification as might pose issues for EPS licence.
- 2) Using passive acoustic monitoring in poor visibility and nighttime. Would not recommend and is against JNCC guidelines, need full justifications for this.
- 3) ADD activation needs more detail if marine mammal in mitigation zone would ADD activation be delayed? need clarification

AS: No updates on JNCC piling guidelines since 2010 when it wasn't a widely used tool. Required update on guidance to align with agreed methodologies in practice.

CO: If a case is presented to verify the use of PAM it would be reviewed and discussed with relevant SNBCs.

MK: As with the earlier slide, adverse effects on harbour seal and grey seal cannot be ruled out – for same reasons and issues for Humber.

SB: Not for in-combination impact for other piling going on at the same time

AS: We have used worst case on this.

RF: Are there any comments on the SIP?



	MK - the principal issue is seeing how it performs considering everything is getting busier in the area.  Post-Meeting Note  We thank Natural England for highlighting the JNNC update to the PAM guidelines in the comments made on the draft minutes. This will be referenced within the updated MMMP.  Summary and Next Steps  May 2024 ES submission  Updates to the chapter, In-principle SIP and Outline MMMP will be based on feedback from this ETG meeting.	RFO
	<ul> <li>We will write up minutes and send out draft for comments.</li> <li>Any further questions or comments?</li> </ul> MK: Wanted to raise issue of sand eels and their importance at Dogger Bank. What impacts proposed on sand eels and then the indirect effects for harbour porpoise. Sits across multiple chapters, impact on spawning etc. AS: Changes in prey sources and significant effects addressed in other chapters. Is there a preferred approach? CO: Covered in fish and shellfish but relates to conservation objective 3, for the Southern North Sea SAC. Would like discussion also to be in marine mammal chapter. MK: Have a look at what they have done on Hornsea 4 – try and factor in sensitivity of receptors/source pathway receptor approach. If high suitability for spawning in area worth exploring what it may look like. Overlap of designations new to us. Worth further thought, especially with	
Action ID	increasing concerns around the fisheries bylaw.  Action	Owner
1	Provide explanation on how values and assumptions regarding Humber Estuary SAC project effects.	AS
2	Provide guidance on the in-principle marine mammal monitoring plan requirements	EJ
3	Submit comments in writing regarding MMMP & SIP	СО
4	Issue draft minutes	RFO

## **Appended Documents:**

• Final PDF of slides presented at the ETG.



		Document	Number: 004994852-01					
	eting with:	Document Number: 004994852-01						
Lo	Meeting with:		Landscape and Visual ETG					
	Location:		Online - Microsoft Teams					
Start Time of Meeting:		10am	Date of Meeting: 26 <sup>th</sup> January 2024					
At	Attendees		Role & Organisation					
		AB	Onshore Consents Lead, RWE Renewa	bles				
		JC	Planning Case Officer, East Riding of Yorkshi	re Council				
		OC	EIA Project Manager, RHDHV					
			Graduate Environmental Consultant, RHDHV					
		PM	Lead Landscape Architect, LUC					
		RT	Onshore Consents Manager, RWE Renev	vables				
		EH	Landscape Planner, LUC					
		BB	Landscape Consultant, 2B Landscape Consul Riding of Yorkshire Council LVIA advis					
Ap	pologies	Initials	Role & Organisation					
Meeting Agenda/ Objective(s):		•	DBS Project Update – timeline for submission LVIA approach and Environmental Statement progress – including photomontages and proposed mitigation. Outline Landscape Management Plan and Mitigation Design and Access Statement					
Item		Desc	AOB ription/ Discussion	Presenter				
	Project design update since PEIR stage  RT presented a summary of the DBS projects' as below:  • There are two offshore wind project – DBS East and West. Together they form the Dogger Bank South (DBS) Projects.  • Located 100km offshore – no landscape visual impacts offshore as a result of the distance from landfall.  • Once the works are complete, total output will be 3GW of power – one of RWE's bigger offshore wind projects. This would provide electricity to approximately 3 million homes.  Infrastructure:  Offshore substations – converts energy in high voltage direct current (HVDC). This electricity generated is then transported all the way, via subsea cables to the landfall location, to the onshore converter substations and converted again, this time into high voltage alternating current (HVAC). HVAC is what National Grid use							



Onshore cable route: Connects at the Landfall zone near Skipsea.

- 35km of onshore cable route takes us to the converter substation location where the DC to AC conversion takes place, to the National Grid substation near Creyke Beck known as Birkhill Wood.
- Additional 4km of onward cable routing to National Grid.

#### **Cable corridor: General construction:**

- 35km of cable route from landfall to the converter stations.
- 75m wide corridor for this cable construction (could widen to 90m for complex areas for HDD), includes up to 4 trenches. A large proportion of the 75m width is to allow for separate storage of topsoil and sub soil.
- 1 haul road which will serve both projects for construction.
- Deep horizonal directional drills, and trenchless techniques wider route for those works.
- Converter station slightly more space required for cables 100m wide sway. 4km up to the National Grid connection point.
- The onward cable routing to National Grid Birkhill Wood substation would be 4 kilometres and using HVAC technology for transmission.
- Where the cable corridor splits into two to avoid a solar farm and pipeline constraints in the area the split corridor widths are up to 53.5m.

#### Indicative cable corridor cross section:

At PEIR it was not known whether to fully separate them, and how to site haul roads

Now refined to one haul road. Large proportion of the area is for the sub and topsoil storage.

- Haul road is located in the centre of the cross section.
- Trenches for cable installation on each side of the haul road, and then further out on each side are areas to separate the sub and topsoil – stored on both sides of the haul road.

#### Converter station zone: site refinement

Refinement of converter stations since PEIR.

Converter stations were located in Zone 1 and 4 but are now co-located in zone 4 only, located north of Bentley and to the south of Beverley.

Overall, this has reduced the percentage of land coverage.

RT stated she will send out the newsletter which has all this information if people need it [Post Meeting Note: Project Newsletter (Winter 2023) Link: RWE\_DBS\_NOVEMBER\_NEWSLETTER\_WEB.pdf (doggerbanksouth.co.uk)].

#### **Development options:**

Two projects – because we have two projects, we have been looking at slightly different ways we might construct for each.

Looked at different scenarios:

- In isolation e.g., either DBS East or West built for one project.
- Concurrent. DBS East and DBS West built together.
- Sequentially. DBS East and DBS West built in sequence. Driver could be due to connections to the National Grid.

All scenarios are being considered in the ES to cover the worst case.

• Up to 4 years if construction in isolation or concurrent.

RT



• Up to 6 years if sequentially built - considers the second project. (See slide for details)

Committed to construction of ducts, landfall works, and substation foundations for both projects simultaneously.

#### **Questions from stakeholders:**

BB asked how the cross section showing two parallel cable routes equates to provision for both DBS east and west.

RT responded that the converter stations have flexibility but have made a commitment to the eastern substation being built first, RT further stated that it links to the offshore development and what parts of offshore can be procured first. RT explained that this will help try and avoid the area onshore where there is crossing of cables.

- There was not a strong preference, so the ES has been left open for now.
- Both options have been covered in the ES, and for the purpose of the ES they have clarified which of the two building footprints would be built first.

RT stated that PM would cover this later and mention that for the LVIA assessment both converter stations together was assessed as a worst-case.

BB queried whether 90%+ of the cable routeing would be done in in a single pass, irrespective of the construction sequence. RT confirmed this, stating that for the second project there will be temporary construction compounds along the route. She explained that this will be done when the first project is constructed and 50% of the compounds reinstated to minimise impacts but allowing for construction of the second project. More focus on the LVIA is on the landfall zone due to the duration of works overall in that area.

## **Programme: Current Status**

- PEIR Consultation feedback received in July 2023.
- Environmental Statement chapter drafting is ongoing.
- The DCO application is due for submission in May 2024.
- Examination period commences from May 2024 and may last 18 months.
- Construction earliest start 2026.
- Operation earliest start in 2028.

## **Update: Changes since PEIR:**

- One landfall site (zone 8) was selected previously there were two.
- HVAC technology has been dropped as it required more space and HVDC is technologically more advanced.
- Reduced cable route working widths.
- Reduced the need for two converter station zones, shared compounds for both projects will also reduce the amount of land take - Co-located converter stations on Zone 4.
- 1 haul road serving the converter station zone has reduced overall area required for construction.
- Build out scenarios ducting will be put in for second project during construction of the first.
- Red line boundary: overall reduced area of land take.
- Landfall zone has been significantly reduced following removal of (southern) zone 9.
- Cable route Nunkeeling- large area of change since PEIR: Geophysical surveys and trial trenching archaeological works undertaken. This area



- was shown to have sensitive archaeology that required avoidance so a re-routeing to the west has taken place.
- Re-route in relation to mineral reserves area at Long Riston moved away from residential receptors and to minimise sterilisation of the safeguarding area.

#### **Questions from stakeholders:**

BB asked whether RWE are aware of the junction changes in the middle of the site (where Jocks Lodge consented scheme is located).

RT stated she is aware of this (Jocks Lodge). She stated that there is a slide on cumulative impacts and highlights the strain due to the current existing infrastructure in the area, both below ground or overhead.

JC noted concerns about the amount of general development activity around this area and that council members will be sensitive to the development location. He queried why the converter stations cannot be located closer to Creyke Beck.

RT clarified that a detailed site option review was done, and that a very robust selection process was complete from an engineering perspective within 3km of the substation. RT highlighted that Creyke Beck was used as a starting point, but with other projects in the vicinity (e.g., Hornsea 4 and DB A and B) it narrowed down options for development siting.

RT stated the reasoning for decisions on scheme options would be addressed in the Site Selection and Alternatives ES chapter.

At PEIR stage, four different converter station options across two different Substation Zones (1 and 4) were considered.

- HVDC technology now selected.
- x2 HVDC converter stations will be located in Substation Zone 4

PM stated that there are certain (LVIA) advantages to the co-located site and that LUC had provided input regarding the LVIA aspects of optioneering, which considered other engineering constraints in the wider area. He stated it represents a compromise of what is technically feasible and what can work with the landscape.

BB and PM agreed with the key principle of co-locating the converter stations to minimise landscape and visual impacts.

RT further added that another driver which influenced the co-located decision surrounded which options required more earth works and therefore, more HGV movements. Co-location of converter stations in Zone 4 was considered to reduce the number of construction vehicle movements.

AB added that construction in Zone 1 would have required significant material brought in for the platforms of the substation due to the low-level area and flood risk.

## **PEIR comments:**

- Limited comments from stakeholders
- NE commented on the Candidate Yorkshire Wolds AONB. They are satisfied the AONB will not be impacted. No further inputs or representations from ERYC or Hull City in relation to the PEIR at the time.

RT added that Hull City Council was invited to this ETG given the ZTV encroaches into their administrative area, but has been clarified that there would be no significant impacts to receptors there.



## 2. <u>LVIA approach and Environmental Statement progress – including photomontages and proposed mitigation:</u>

- No changes in the overall approach
- Onshore cable route no significant issues were identified, and as no changes have taken place, we are not going to revisit this assessment in the ES.
- The LVIA assesses mainly the landfall and the converter station zone.
- Assessment focuses on the construction effects of both projects being built sequentially for a worst case assessment).

BB enquired in terms of scoping out of the onshore cable whether the loss of hedgerows required assessment.

PM confirmed that the works do avoid many sensitive hedges and woodland, but there is a process to replace those following completion of the works. He also stated that at PEIR it was concluded that there would not be significant effects. RT added that there are commitments to minimise hedgerow losses where open cut trenching was proposed, i.e. not requiring the full 75m working width, and reinstating as quickly as possible. Use of trenchless crossings (HDD) was proposed to avoid hedgerows where possible.

RT stated that offsite compensation will be provided for Biodiversity Net Gain (BNG) purposes.

RT requested general agreement towards this approach.

BB stated that he agreed in principle as long as this was documented in the LVIA reporting.

#### Approach:

Study area – 5km radius around the converter station and 1km along the cable route

- ZTV has been updated since PEIR to reflect the co-located converter stations, showing the ZTV of the buildings at 24m height. Lightning masts will be 27m high but given they are very thin, are unlikely to be noticeable in views from the surrounding area. The converter stations are unlikely to be excessively visible from the wider surroundings but landscape screening is provided.
- A ZTV with screening has been done which includes the screening element provided by existing mapped woodlands and buildings visibility extends across the study area, however there is no views from the westward areas of Beverley (which we were keen to avoid).

## Baseline: Not changed since PEIR.

- East Riding Landscape Character Assessment (2018) has been considered.
- Visual baseline includes focus on Bentley village to the south and the edge of Beverley to the north.
- Key receptors: Recreational use in the area public rights of way, beaches and various cycle routes and tourist infrastructure.

PM asked whether there were any more baseline receptors the stakeholders wanted to add.



BB agreed with the scope and queried if the Hull-Beverley railway line is too far away to be considered. PM confirmed it was.

JC commented on the section of land between outer Beverley to Walkington. He stated that this location is a fairly open, elevated location and would consider it to be a key point to consider because of views down toward the city.

PM stated that viewpoints from the Beverley 20 route near Broadgate (viewpoint 3) and the view from the edge from Walkington itself (viewpoint 5) have been considered. There is no specific viewpoint along the elevated B-road. PM stated that viewpoint 4 (Oriel Close, off Broadgate) from the houses covers views from the B-road as well since it looks across the A1079 to land rising to the other side.

PM asked stakeholders if there were any other viewpoints to consider.

BB responded that the spread of viewpoints seemed sensible.

JC stated that viewpoint coverage was appropriate but mentioned a potential location (a farm) near Bentley Park Farm, west of the substation.

PM confirmed that this area near Bentley Park Farm and the walking route in theory looks quite open but was actually quite wooded, and had limited access/visibility so was not included.

#### Landfall and cable corridor:

PM explained the approach around the cable works from landfall.

- Reassessing landfall as we have more detail on this during construction.
- There is the potential for cofferdams on the beach temporary works on the beach as well.
- Significant effects in that area could emerge from the ES assessment.

RT offered to include a slide about the cofferdams post meeting.

RT mentioned the trenchless techniques to bring the offshore cables into the landfall zone, as part of this geotechnical studies are currently being undertaken to identify the potential length of a long HDD (that could avoid use of cofferdams). However the short HDD (requiring cofferdams) ensures that the worst case is assessed in the ES. RT clarified that the cofferdams were temporary (18 months) and 0.1-0.2 Hectares in size. RT also confirmed they would be present during the 'pull through' of the cables.

## **Substation Zone:**

- Close to Butt Farm and campsite. Bentley village to the south, and downhill from the converter stations.
- Converter stations will be on a slightly elevated piece of land but can see the woodland to the immediate west.

## **Key visual receptors:**

- Butt Farm
- Bentley village
- Houses on the A164 lie between main road and the substation zone.
- Houses to the north.

#### **Visualisation: Coppleflat lane, Bentley (PEIR Vs ES draft)**

 Picture shows the view from Bentley village to the south, looking toward the converter station buildings (purple box). Each compound comprises of these closer buildings on the south side, while the north is more open



compound of electrical equipment at a lower level (right hand side of the image).

- Coppleflat Lane, Bentley is considered the worst view looking uphill.
- Provides screening via planting and hedgerows along the southern boundary of the substation zone.

BB wanted to clarify that the foreground field would have new hedgerow and field planting. PM highlighted that the substation zone is occupied by a large area for cabling and that it is not possible to plant trees over the cables and existing gas pipelines. PM clarified that screening will be placed along the southern boundary.

RT highlighted that negotiations are underway with the landowners to return some of the land back for agricultural use. This should not change the viewpoints, and the proposed woodland will provide adequate screening. She mentioned that this could be helpful in terms of biodiversity net gain also.

PM noted that there is a c. 50m belt of screening, which will be revisited at detailed design to gain more layered screening closer to the converter stations.

JC asked whether the area to the west involved a different landowner and if there was potential opportunity to plant there also. RT stated that they had not looked into it but highlighted that one of the key elements of landscape screening vs BNG is to not include any land that is not essential screening in terms of CPO (i.e. CPO rights cannot be granted for BNG alone, but can be for visual mitigation screening). Additional planting for BNG would require separate landowner agreements. BNG legislation to allow CPO powers for NSIPs has not come into force yet. PM agreed and stated that there is no large group of receptors on the western side, and that there were existing woodland blocks already providing screening.

RT stated what cannot be achieved within the red line boundary would be compensate for outside it, and options were being sought for partnerships with landowners

BB stated that he shares JC's concern in identifying that open western boundary and the gas pipelines. He questioned to what extent can you put effort into improving landscape structure offsite in the surrounding area, e.g. enhancing hedgerows, or working with Humber Forest (Jennifer Woollins at ERYC is involved, JC would send over information).

RT responded that she was not aware of Humber Forest but would explore BNG options in that regard. RT added that the onshore cable route and converter stations will be managed by another company and therefore it will be more difficult to manage anything that is not in RWE ownership, hence the desire to enter into partnerships with third parties.

**Visualisation: Butt Farm:** view from the public right of way track.

North views:

Beverley walking route (that JC identified) - similar views from the road.

- The existing woodland does help to screen in the edge of the development
- Not as stark compared to other views.
- B road would have view of woodland still visible but not in skyline.

#### Walkington:

- ZTV does extend there the existing hedgerows would screen the tops of buildings.



	- Tree screening in the area that will help limit views of the converter stations.	PM	
	Woodmansey:		
	<ul> <li>Limited view of the development</li> <li>From Minster tower - more visible due to the height of the tower but less impact due to the distance away in the wider panorama.</li> </ul>		
	RT stated that the next ETG will include these visualisations again, highlighting any updates.		
	Design and Access Statement:		
	BB expressed concern at the muted, slightly understated shading of the converter stations in the visual imagery i.e. they could look brighter and more prominent in reality.		
	PM agreed to consider this. The final colour, palette and finishes will be addressed as part of the Design and Access Statement, which will be submitted with the DCO application.		
	JC add that on other schemes, the Planning Inspectorate had pushed very hard in regard of design and visual appearance and that this would likely be a key issue at examination stage.		
	RT stated awareness of this and has taken note of the approach taken on the Hornsea 4 application.		
	BB requested whether lighting has been considered, especially night-time effects as this is issue is commonly missed. PM and RT both responded that lighting requirements will be explored further and included in the Commitments Register.		
3	Draft Landscape Mitigation Plan:	PM	
	Emerging design Principles – see slide.		
	Provides details on the design of the development and landscaping.		
	PM requested comment from stakeholders.		
	BB mentioned the previously discussed potential for landscaping in the wider area, and the opportunity for layered benefits with the enhancement of surrounding hedgerows within 2 km of the site. He otherwise agreed with what was proposed. BB queried whether habitat creation around the SuDS feature to the east, which looked like a hard engineered structure, could be enhanced with other more natural landscape features e.g. swales, which could also help deliver BNG benefits.		
	PM agreed to liaise with the engineering team, but it would likely be left as is at this (outline) stage. RT added that it is indicative landscaping, with room for refinements at the detailed design stage and that the design and access statement will explain this in more detail.		
	Cumulative Assessment:		
	- Slide lists projects considered in the surrounding area.		
	PM asked the stakeholders to confirm agreement on the projects mentioned.		
	BB and JC responded that there is nothing else to add.		
1	RT stated that the long list of developments would be issued to JC		



4.	Summary and Forward Programme:	OC
	OC stated that feedback from today would be considered, and summarised the following:	
	<ul> <li>LVIA ES chapter is being drafted.</li> <li>Outline Landscape Management Plan in preparation</li> <li>Plan another ETG prior to DCO submission (likely end Feb/ early March)</li> <li>Design and Access Statement is being prepared.</li> <li>All documents will support the DCO submission in May 2024.</li> </ul>	
	Questions:  RT asked the stakeholders if they wished to see a draft of the documents prior to submission, and whether there was anything that caused concern.  BB responded that it would be useful to see the visual montages with (massing) wire lines, including the screening mitigation (post-meeting requests from BB included below).	
5.	AOB OC requested further comment on the presentation or AOB. BB and JC stated that all their questions have been answered. OC thanked attendees and closed the meeting.	OC
Action ID	Action	Owner
1.	Issue the newsletter to those who wish to have all the information that is included in this ETG meeting [Post Meeting Note: link added above].	RT
2.	Add information on cofferdams [Post Meeting Note: now added to presentation].	RT
3.	ERYC to issue information regarding the tree planting scheme at Humber Forest.	JC
4.	RWE to issue the long list of developments included in the CEA to JC.I	RT
5.	Issue minutes, presentation and Agreement Log	OC
6.	Post meeting request: supply viewpoint montages and methodology used, viewpoint location plan, 3D model oblique aerial view, ZTV (Yr 1, Yr 10- with mitigation), Mitigation Plan and plant growth assumptions, Earthworks (cut and fill) information.	RT

# **Minutes of Meeting**

**Appended Documents** 



# **Minutes of Meeting**

Benthi	c Ecology	and Physical Proces	sses ETG		
<b>Document Number: 005014168-01</b>					
Meeting with:	Meeting with: Benthic Ecology and Physical Processes ETG				
Location:	Online - Microsoft Teams				
Start Time of Meeting:	10am	Date of Meeting:	29 <sup>th</sup> January 2024		
Attendees	Initials	Rol	e & Organisation		
	СМ	Principal Coast	Principal Coastal Geomorphologist, RHDHV		
	RF	Senior Enviror	nmental Consultant, RHDHV		
	CC	Environme	ental Consultant, RHDHV		
	PP	Principle Enviro	onmental Consultant, RHDHV		
	AP	Offshore Conse	nts Manager, RWE Renewables		
	DB	Offshore Conser	nts Manager, RWE Renewables		
	HP	Consents M	anager, RWE Renewables		
	СР	Water and Sedi	ment Quality Technical Lead, RHDHV		
	ZT	Marine Licer	nsing Case Manager, MMO		
	LC	MMO			
	IB	Acoustic P	Acoustic Processes Scientist, Cefas		
	JP		Cefas		
	PM		Cefas		
	RPV	Case Officer, Natural England			
	PC	Case Of	ficer , Natural England		
	EH	Senior Specialist C	Coastal Geomorphology, Natural England		
	EJ	Marine Senic	or Advisor, Natural England		
	YF	Marine Senic	or Advisor, Natural England		
	LB	Principal A	Advisor, Natural England		
	EH	Offshore Indus	stry Advisor, Natural England		
	LBo	Coastal Geomorph	ology Lead, Environment Agency		
	ОВ		phologist – East of England, Envi- onment Agency		
	MW	Planning Spec	ialist, Environmental Agency		
	ET	Offshore	Industry Advisor, JNCC		
	NP	Offshore	Industry Advisor, JNCC		
	CP		Wildlife Trust		
	TD		Wildlife Trust		
	BF	Li	ncolnshire Trust		



	SB	Graduate Environmental Consultant, RHDHV		
	МН	Graduate Coastal Processes Consultant, RHDHV		
Apologies	Initials	Role & Organisation		
Meeting Agenda/ Objective(s):	• F	Summary of construction impacts and model results.  Summary of operation impacts  Benthic and Intertidal Ecology  Benthic Ecology Monitoring Survey Summary  Impact results from the ES  Results from the CEA		

Item	Description/ Discussion	Pre- senter		
1	Project Design Update	DB		
	Intertidal works:			
	<ul> <li>A short HDD is a worst case scenario with an exit pit/cofferdams at MHWS then trenching to MLWS.</li> </ul>			
	<ul> <li>Cofferdams used to control drilling muds if this is a stakeholder preference</li> </ul>			
	It was asked whether the cofferdams have been given any considerations during and after the 18 months, since they will be disturbing material. Have RWE considered the long-term impacts? Investigation of method impacts is ongoing and more info is discussed later in the presentation.			
	No further questions/comments.			
	<b>Post-meeting note:</b> Cofferdams have been withdrawn from the design envelope on response to stakeholder comments during the ETG, however exit pits currently remain within the intertidal, with a worse case location at MHWS. This note is relevant to where cofferdams have been mentioned throughout the minutes.			
2.	Physical Processes - Summary Approach:  PEIR was based on pre-existing data (from Dogger Bank A, B and C - ES in 2012), but based on feedback, site specific data was requested.  Project ES Approach:	СМ		



- Bespoke numerical modelling has been undertaken
- Modelling has been run for the following scenarios:
  - Baseline No offshore wind farms present (to inform the baseline for the environmental chapter); and
  - o Baseline with parameters of DBS East and DBS West projects.

The impacts that those models provided were associated with:

- Construction effects in relation to changes in SSC and the fall out in bed level and the morphology of the seabed
- Operation effects in relation to wave and hydrodynamic regimes (due to the physical blockages in the water column).

A sensitivity test was done to understand the worst case layout for different elements of the assessment.

- Option 1: Relatively broad layout distributed turbines across the two Array Areas (100 turbines in each Array).
- Option 2: Layout used the minimum spacing distance (830m) between the turbines within the Array Areas.

Feedback from previous ETG that Option 2 was not considered a realistic scenario, but the Projects consider it is realistic as it considers the navigation risk and minimum spacing of turbines. For the Projects approach, depending on the impact being assessed, we have considered both options as the worst case scenario. In terms of assessing the operational effects of physical structures within the water column, placing the wind turbines as close as they can be (Option 2) is the worst case scenario. Depending on the impact being assessed there may be a variation in which worst case scenario is being used.

### **Post-Meeting Note**

NE maintains their previous advice that Option 1 presents a more realistic worst case scenario.

#### **Modelling results:**

## Changes in bed level due to drill arising during foundation installation:

Most of the foundations are within the array areas, and one in the ECC.

 <2mg/l within 5km of disturbance, only 5% of all locations will need drilling, very low SSC concentration changes, changes in bed level immeasurable (<0.5mm)</li>

Changes in SSC due to seabed preparation for foundations:



The footprint of the foundations (monopile and GBS) and scour protection were also modelled and changes were of the same order of magnitude as for drill arisings.

# Changes in SSC and transport due to cable installation:

The impacts identified were more laterally extensive when compared with foundation installation.

Modelling was split into two phases:

- Seabed preparation
- The dredging/trenching of the cable corridor.

Up to 20% of the cable corridor may need clearance and the model was run in locations where mobile bedforms are present as a realistic worst case scenario. Models run for seabed clearance in relation to cable installation in the following areas:

- Offshore Export cable.
- Inter-array cables (DBS East and West).
- Inter-platform cables between both sites.

# **Post-meeting note:**

Up to 10% of the array cable / inter platform cable lengths and up to approximately 100km of the Offshore Export Cable Corridor may need clearance and the model was run in locations where mobile bedforms are present as a realistic worst case scenario.

**Modelling results from seabed preparation and levelling:** Results show changes for entire simulation period and the greatest changes occur over a larger distance during peak tides. This provides the worst case.

Seabed prep for cable installation has been modelled to show up to SSC 25mg/l within the cable corridor itself. Further away, changes of up to 0.5mg/l are predicted at 10km from the cable route.

The model shows that changes in bed level due to deposition of the SSC are restricted to within the cable route, with a maximum change of 0.03m/3cm change in bed level as a result of worst case seabed levelling clearance. This is relatively small in magnitude.

**Modelling results from trenching:** covered the entire cable route.

- Maximum change is 1000mg/l within cable route.
- Saw changes reduce further along the cable route. Changes of up to 750 mg/l within 5 km of cable route and up to 0.5 mg/l within 20 km of cable route.

Modelling revealed a sheltering effect from Flamborough Head, due to lower tidal currents not being able to disperse the plume as far. Stronger currents were identified along the cable corridor, with tidal currents reducing offshore, towards Dogger Bank.



- Modelling was based 8 months simulation period (the predicted time it will take to install the cable corridor).
- Changes to bed level due to cable installation is predicted to be around
   0.5cm change in bed level relatively small and local.

# **Summary of construction impacts:**

CM highlighted which impacts have been assessed using modelling, and what the predicted outcomes are expected to be.

- All changes in SSC, due to various activities, are small in magnitude and localised (with km of the disturbance area itself).
- Deposition of SSC results in very small changes in bed level.

In terms of significance effects, the impacts have been assessed as negligible and were all assessed as localised and temporary, apart from the landfall activities.

# Landfall exit pits and cofferdams in the intertidal zone

- If landfall exit pits were excavated, the material deposited on the beach would be removed by the tide which could lead to an increase in SSC due to that activity.
- Sediment yields have been looked into to understand the volume of the sediment disturbed. Depending on the build scenario, there will be 3 pits (in isolation) or 6 pits (sequentially) maximum sediment volume disturbed due to the landfall exit pits would be 3600m³. This volume is a fraction of the amount that the Holderness Coast contributes in terms of sediment (due to erosion), and therefore, any changes in SSC are negligible to low due to the background levels being so large.

LBo asked if it is known that sediment movement is a problem, what else could you do to mitigate through engineering/mitigate the worst case scenarios? CM stated how the volumes are based on worst case scenario. She mentioned she has been doing research into this specific part of the coast and asks if anyone has any studies that could be used to assess or mitigate against this would be very helpful.

LBo queried on why the material can't be located higher up the cliff-line to allow the sediment to naturally replenish itself back into the sea over a longer time period. CM responds by stating that this is insightful and will be considered.

# Interruptions to bedload sediment transport:

General long-shore sediment transport from N-S along the coast. If cofferdams were put in place, there is the potential for this N-S movement of sediment to be interrupted.



- This is being assessed separately in the ES.
- Cofferdams: positioned 50m from each other will create a localised interruption to alongshore sediment transport. The assessment would likely result in low/negligible significance of effect.

LBo commented on the design of the cofferdams, can the engineers create a curved system for the cofferdams so it's less angular/groyne like, maybe more diamond shaped to promote sediment transport bypass?

CM stated that discussions around this were ongoing and these potential mitigation options will be shared with the engineers.

YF asked if cofferdams being demonstrated in modelling and if the effects of Spurn Point have been considered. CM stated cofferdams have not been modelled to date and requested further information on why Spurn Point specifically is of interest.

<u>Post-meeting note</u>: due to the removal of cofferdams, interruptions to bedload sediment transport have been reassessed for exit pits only. Upon completion of trenchless duct installation and following export cable installation within the trench between the bore pits and MLWS, the trenches will be backfilled to reinstate the intertidal zone close to its original morphology. This activity would result in some localised and short-term disturbance of sediment on the beach, but there would be no long-term effect on sediment transport processes. Given that the impact on bedload sediment transport will be small and localised, the magnitude of impact is negligible.

#### **Enhancement of coastal erosion**

The worst-case scenario for cofferdams is if the cofferdams were placed at MHWS which is located at the base of the cliffs. Under this scenario, there is the potential for enhanced coastal erosion and the destabilisation of the cliff.

 Mitigation would be to move them away from the cliffs, or install them sequentially so minimise impact. CM stresses that mitigation options are being explored with engineers.

CM asked for feedback on this worst-case scenario in terms of coastal erosion:

- LBo agreed with CM that this is a worst case scenario and that it being assessed in order to identify it not being a viable option. Good idea not have cofferdams near base of cliffs and sediment to be reinstated once cofferdams removed.
- CM refers to YF previous question and asks for feedback on this point regarding modelling. The Project has an approach to understand SSCs, and there is potential to use particle tracking to model bedload sediment, but the cliff stability element is a lot more difficult. CM asked



for feedback on appropriate modelling techniques to understand cliff stability and coatsal erosion due to cofferdams.

 OB agrees that it is hard to model (cliff recession) and advises less of a formal reliance on an individual model and more of a robust expert geomorphological approach along with the use of pre-existing modelling for the area.

# 3 Physical Processes: Operational: Modelling results:

Modelling was set up for wave and hydrodynamic models for both DBS East and West.

#### **Tidal Currents:**

- Model based on worst case layout.
- Based on the same parameters (100 wind turbines, 15m monopile diameter, four 65m GBS, one 65m GBS platforms in the export cable corridor.

Changes in tidal regime were due to the presence of infrastructure.

Changes in flood tide current speed were seen across the array area due to infrastructure. No impact was modelled on the coastal receptors.

- Changes were mainly located around the platforms, 1km at worst case. This could result in a 4-5% +/- change in current speed (relative to the baseline).
- The further away from the structures, smaller changes were seen 0.01m/s and 2/3% of the baseline in tidal currents.
- Slight variation across the Array Areas

There were also no overlapping effects between DBS E and DBS W for both layout options. The worst case change in peak current speed, relative to the baseline, occurs during the spring flood.

# **Wave Regime:**

Changes in wave regime due to the presence of infrastructure. It was highlighted modelling results were based on three return periods.

- Advice was taken forward from PEIR, and the 50 percentile return period was assessed, in addition to the 1 in 1 year and 1 in 100 year return periods.
- Maximum change seen in Option 2 and 1 in 1 year return period
- Modelled in two directions, North (general wave direction) and East to consider changes in waves.

A change in significant wave height of 0.16m was seen within 1km of the platforms (65m GBS) and reduced further way from Array Areas (0.04m at 60km). No changes were seen near the coast.

There is potential overlap during RP1 (east and north) and RP100 (north), however, these are effects are small (0.04m) and within 2% of the baseline for



a 1 in 1 year event. No increase in significant wave height is predicted across all scenarios and no effect on coastal receptors is predicted either.

# Changes to bed load sediment transport and seabed morphology due to the presence of infrastructure:

Changes in bed shear stress output from the tidal modelling.

At worst case, there are no overlapping effects between DBS East or DBS West for both options (1 and 2). The maximum change in bed shear stress of  $0.02 \, \mathrm{m}^2$  predicted is locally near the infrastructure and is predicted to be <3% of the baseline, and changes of <1% of baseline within 10km of the structures. Changes were small and localised in terms of bed change and bed shear stress.

#### Cable protection measures: Nearshore

Consultees requested that no cable protection measures are to be installed in water depths <10m below LAT.

A plot showing areas where bedrock was less than 2m below seabed was shared to show the potential location of cable protection. This has been ground truthed with boreholes.

- Engineering and geotechnical risk that the bedrock is shallow in the nearshore, and that's the reason for cable protection measures are currently in the PDE.
- Cable protection may be needed as a result of this at a worst case, potentially in 9-10mLAT water depth.

LB commented on how the use of cable protection is seen as a significant showstopper from Natural England's perspective within 10m depth contour. She states that they have other projects in the vicinity who have committed to not use cable protection, and states there's a need for this project to find an alternative to avoid a groyne effect, suggesting how even cutting a groove could be of benefit, and that anything raised above the seabed would not be supported by Natural England due to sediment accumulation. Natural England would advise anything other than cable protection due to the concern of Spurn Point. It is a standardised approach (if within a 10m depth contour) along this area of the coast and has been adopted in other projects within the area to avoid implications on the surrounding coastline protected areas and features.

CM The Project will look into this but what is the 10m depth contour based on from a coastal processes' perspective, and why this needed in this particular area? The ES has calculated closure depth as 6m water depth.

LB stated that Dogger bank A and B looked into this, and it became a standardised approach that's been advised for Hornsea 4 and Northern Endurance. She states that sediment transport should reach Spurn Point and the various features in the intertidal habitats and Humber Estuary SAC/SPA.

• LB stated an alternative must be found within this area.



Lbo The Environmental Agency agrees and support Natural England's advice on this and asks what the return time is for the wave height, and quires how representative this information is.

CM The feedback is appreciated and this will facilitate discussion with engineers and the offshore team.

<u>Post-meeting note</u> – Review of the Development Consent Orders (DCOs) for Hornsea Project Four and Dogger Bank A & B (formerly Dogger Bank Creyke Beck) confirmed these projects committed to the following in regards to cable protection in the nearshore:

# Hornsea Project Four

 No cable protection must be employed within 350 metres seaward of MLWS, measured as a straight line'. No commitments are made to use of cable protection within the 10m depth contour.

# Dogger Bank A & B

- 'No cable protection must be employed within 350 metres seaward of MLWS, measured as a straight line'; and
- 'Cable protection must be limited to 10% of the cumulative length of all cables laid between MLWS and the 10-metre depth contour as measured against lowest astronomical tide before the commencement of construction'.

It is noted that the Northern Endurance carbon capture and storage project has committed to having no external protection within the 10m depth contour, given the pipeline for the project makes landfall in close proximity to the Spurn Head geological feature.

Having reviewed the SI information obtained from site, and the project Cable Burial Risk Assessment material in addition to the different commitments made by previous projects in relation to this issue DBS proposed to commit to installing no burial protection within 350m of MLWS in addition to limiting remedial protection to no more than 10% of the cable length between MLWS and the 10m contour.

# **Summary:**

- Impacts are generally small/negligible and localised changes.
- Various sources have been used to investigate the stratified area and expect the changes to be locally restricted and small.
- Water circulation due to infrastructure was not modelled, with assessment being based on expert evidence. Various sources surrounding the stratification of the water have been reviewed.

Nearshore, the cable protection measures are a ramp for the sediment to bypass (and will consider any studies undertaken for Dogger Bank A and B projects). In terms of cable repairs, CM states that they estimate 25% of the cable to require maintenance, repair and reburial during the operation phase – which is assessed as a negligible significance of effect.



A loss of seabed area due to the foundations and scour protection: a comparison was done between the footprint relative to the Dogger Bank SAC and Southern North Sea SAC – Minor adverse impact assessed.

LB: When considering SACs, minor adverse does not work for the assessment, it should be 'does or does not have adverse effect' in relation to integrity of SAC. There is a separate assessment for this, make sure consistent terminology and clearly signposted to relevant chapters throughout to avoid wrong messaging

PP: Mentioned that there is a SAC assessment, and noted LB comments regarding terminology when referring to the SAC, and that EIA terminology shouldn't be used.

#### **AOB:**

EJ: Will a method statement for the modelling will be provided? CM stated that there is a stand-alone technical report, but due to the timings of the modelling it hasn't been send out yet but will be in due course.

YF: Has the Dogger Bank Zone, as a whole, in terms of the cluster of wind-farms been addressed in the ongoing research regarding the possible 'group effect' on that feature – Flamborough front. CM confirms that this will be assessed in terms of CEA and has further looked into literature. There has been conflicting research, and it has been challenging to have confidence in one study. The ES will provide a summary of the papers looked into, but there were not many to references as the work was still ongoing.

YF: Looking at what is available now, e.g., satellite data, chlorophyll levels, can help understand the position of the front, this could be helpful whilst waiting for wider information and research to come available.

TD: is it possible for RHDHV to provide a draft summary on research which will be included in the ES. CM stated she will take this away and see when this can be done.

# 4. **Benthic Ecology Monitoring Survey Summary**

The 2023 benthic ecology monitoring survey was summarised, highlighting how sediments across the DBS survey were mainly found to be sands, lesser extent gravel, and a small % of fines.

On the Ecology side of the survey, one habitat and five biotopes were identified. The biotope 'piddocks with a sparse associated with fauna in Atlantic circalittoral very soft chalk or clay was found DBS East.

16 stations were evaluated for the potential of Annex I habitat 'Reef' (geogenic), and overall assessment for the aggregations of cobbles revealed that there was 'no resemblance' or 'low resemblance' to a stony reef.

# Impact conclusions from the ES

Worst effect was minor adverse

### **Temporary physical disturbance:**

RF



Habitats predicted to have a low-medium sensitivity. Piddock habitat has a higher sensitivity than other biotopes. Total disturbance of less than 25km² for the Array Areas and less than 18km² for the ECC for both Projects together, which represents a very small portion of the Dogger Bank and wider North Sea, and combined with the temporary nature of the disturbance, is considered to be of negligible magnitude. Therefore, a potential minor adverse significance of effect is predicted.

#### Increases in SSCs:

Modelling for physical processes as suggested that SSCs could be up to 1000mg/l within the ECC but deposition will be a maximum of 0.5-5cm. Impacts expected to be fairly localised around the point of discharge, negligible and predicted to be minor adverse in significant effect.

#### **Remobilisation of contaminated sediment:**

The sensitivity of the identified biotopes within the Offshore Development Area to chemical pressures have not been assessed by MarESA

However, the majority of instances of elevated contaminants were located in the vicinity of ST161, were arsenic levels were elevated.

ST161 was characterised by the biotope 'Mediomastus fragilis, Lumbrineris spp. and bivalves in Atlantic circalittoral coarse sand or gravel'.

The evidence for species typical of this biotope indicates a tolerance of low-levels of heavy metal contamination. *Mediomastus fragilis*, a key indicator species for the biotope, and is considered to be tolerant of contaminated sediments (Dean, 2008). Other species typical of the biotope, such as *Owenia fusi-formis* and *Glycera. lapidum*, are noted as being tolerant of heavy metal contamination (Gibbs et al., 2000; Hiscock & Bell, 2004).

#### **Noise impacts:**

There is evidence to suggest that some benthic species perceive and react to noise and vibration. However, the MarESA sensitivity assessment for all of the biotopes recorded in the Offshore Development Area is that noise impacts are 'Not Relevant'.

Studies have been done on crustaceans, but this is poorly understood. The studies stated that species have the potential to be impacted but the noise impacts should be localised. The significant effect has therefore been assessed as negligible.

Based on the worst case negligible sensitivity of biotopes and the low magnitude of impact of underwater noise on benthic ecology receptors during the construction phase, the significance of effect is assessed as negligible.

#### Long-term habitat loss:

Habitats within the offshore development are predicted to have a high sensitivity to long term habitat loss.

The estimated area of worst case habitat loss within the DBS East and DBS West Array Areas is 1.09 km² and 1.12 km² respectively, representing 0.31% and 0.32% of each Array Area and combined only 0.02% of the area of the Dogger Bank SAC.



Estimated worse case of habitat loss of <1% each array area. This represents a small % of the Dogger Bank SAC (<0.02%) and has therefore been considered negligible despite being long term for the lifetime of the project.

#### EMF:

The effects of EMF on benthic communities are not well understood, although studies (suggest that benthic communities growing along offshore export cables routes are similar to those in nearby areas beyond the likely reach of EMF.

Jakubowska *et al* (2019) studied the effect of EMF on the behaviour and bioenergetics of the polychaete, *Hediste diversicolor*. No avoidance or attraction behaviour to EMF was shown, but burrowing activity was enhanced in EMF treatment, indicating a potential stimulating effect on bioturbation potential. The presence of increases EMF will last the entirely of the operational phase of the project and has been assessed as negligible significance in terms of effect due to the cable burial.

#### **Colonisation of introduced substrate:**

Habitats within the offshore development area have a 'not sensitive – high sensitivity' of introduced substrate, including invasive and non-native species.

 biosecurity measures will be introduced by employing industry standard advice and security measures.

Of the identified biotopes in the Offshore Development Area, four are considered not sensitive to the introduction of INNS, primarily due to the mobile nature of the sediments upon which the biotopes are based preventing non-natives from establishing themselves. The remaining three are considering highly sensitive:

- *Mediomastus fragilis, Lumbrineris* spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel (MC3212)
- Abra prismatica, Bathyporeia elegans and polychaetes in circalittoral fine sand (MC5212)
- Abra alba and Nucula nitidosa in circalittoral muddy sand or slightly mixed sediment (MC5214)

JP: Agreed that the contaminants are negligible and that the levels are expected in the North Sea. In terms of the ES, the THC data is less relevant, especially when the use of PAH data is being done. Regarding SQGs, are they the Canadian SQGs? RF confirmed this.

JP: Which laboratory was used for the contaminants analysis? RF clarified this was Socotec.

## **Conclusions from the CEA**

Projects Screened-in listed on slide



A 14km radius from the Offshore Development Area has been used to determine the list of projects considered for the CEA. This is based on the maximum tidal excursion ellipse

Plans / projects have been assigned a tier level between 1 and 7, based on the most recent guidance from Natural England (2022).

Dogger Bank A & B ECCs do not overlap but the 1km Construction Buffer Zone does.

EMF and remobilisation of contaminant sediment were screened out. They were considered negligible and therefore no cumulative effects.

# **Temporary physical disturbance:**

RF highlights how there is the potential to overlap with HOW4 during construction.

- Due to known construction timings or lack of spatial overlap there is no pathway for cumulative temporary physical disturbance impacts with DB A&B. Northern Endurance or EGL 2.
- HOW4s ECC crosses the Projects ECC, as discussed on other slides the sensitivity of prevalent biotopes within the Offshore Development Area to temporary physical disturbance is considered to be low due to their high recoverability.
- However, the biotope 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay', present at several stations within the Offshore Development Area has a higher sensitivity (medium) to temporary physical disturbance than others present and may be impacted by cumulative construction activities. This biotope was not recorded within surveys for the HOW4.
- Given that there will be a small area of habitat disturbance and it is unlikely that a temporal overlap in export cable construction activities would occur, there are not predicted to be any significant cumulative effects.
- The construction timelines for other projects are not known so it is not possible to undertake an assessment.

#### **Increases in SSC:**

Potential overlap with HOW4 and EGL2. As with temporary physical disturbance there is no pathway for cumulative temporary physical disturbance impacts with DB A&B, or Northern Endurance.

- Sensitivity of biotopes across the development area is predicted to be low, apart from the Piddock habitat which was given a medium sensitivity.
- Sediment plumes from the Projects foundation installation and drilling are expected to increase 2mg/l above background levels and travel a

CC



maximum of 5km from the point of disturbance, lasting no more than a few days.

- During cable installation, suspended sediment concentrations of up to 1000mg/l occur within 1km of the cable corridor with values returning to background levels within 5-7km of the cable corridor. From around 60km offshore, the extent of the plume reduces from 5km to around 2km within the Array Areas.
- During cable installation it could go up to 1000mm, with the potential for the sediment plumes to overlap and have a cumulative effect.
- However, the cumulative impacts of increased SSC are expected to be
  of local spatial extent, temporary duration, intermittent and reversible.
  Fine suspended sediment may be transported a further distance than
  coarse sediments, however this is likely to be widely and rapidly dispersed and within the range of natural variability within the region.

Based on a medium sensitivity of habits and low magnitude of impact, a minor adverse significance of effect is predicted

#### **Underwater Noise and Vibration:**

The significance of effect for the Projects-alone during construction and decommissioning is negligible. Impacts would be localised to the immediate vicinity of the source and it would be unlikely there was a spatial overlap of activities. Therefore, the cumulative effect would be negligible.

# **Habitat loss:**

- Other projects within the Dogger Bank SAC were also considered.
- CEA: 0.117% of the Dogger Bank SAC could be impacted by long-term habitat loss.
- Small % of biotopes within the SAC are small. The significance effect is minor adverse.

EJ stated that the predicted habitat loss in the PEIR in the Dogger Bank SAC for DBS East and West was 11.4km² and has now reduced to 2.2km². What has been done to the project scope for this to be reduced, perhaps reduction in loss from scour and cable protection? RF: The Offshore Development Area has been refined and the Array Areas are smaller. EJ: understood, but thought the maximum design parameters was staying the same. CC: suction bucket jackets and gravity-based foundations have been removed from the Array Areas, which has overall reduced the size.

- Offshore platforms now only use monopiles as a worst-case
- Suction buckets and gravity based have been removed from the entire Array Area.

RF



**Post-meeting note**: This 11.4km2 was for the Projects built together and represented the entire predicted habitat loss across the Offshore Development Area, not just the Dogger Bank SAC. The table presented shows the area in the Dogger Bank SAC only (which takes out a lot of the ECC). This in addition to the above discussion shows how the predicted habitat loss area has been reduced.

EJ: Welcomed the removal of gravity bases for platforms within the Array Areas, but highlighted that the marine processes modelling still included gravity base platforms in the arrays as the WCS. CM: modelling was undertaken when gravity based were worst-case scenario, and the design envelop changes with time. EJ: appreciates that the design has changed since the modelling was started, but stated that Natural England would likely disagree with this approach at this point and would recommend that the true worst-case and design parameters (monopiles) be assessed. The worst case scenario assessed should reflect the maximum design parameters of the project being applied for or it is unrealistic, we would recommend that the modelling is rerun based on the final design. CM: monopiles will be assed in the assessment, but the modelling will be including GBS for the Offshore ECC, and is therefore still valid in the model.

### **Colonisation of introduced substrate:**

The amount of hard substrate introduced to the wider region via these developments will be broadly similar to the long-term habitat loss areas calculated. Due to this very small area, it is unlikely that a 'reef effect' will occur in the Dogger Bank SAC due to introduced substrate, and therefore the magnitude of impact is negligible.

As the sensitivity of the biotopes present within the Offshore Development Area is high but the magnitude of impact is negligible, the overall significance of cumulative effect from the colonisation of introduced substrate, including non-native species is minor adverse.

# **Draft RIAA conclusions:**

Emphasis on that these are not the final conclusion - ongoing work is still being done to consider the Round 4 plan level HRA that has also been conducted.

 Dogger bank SAC: Currently is assessing for a potential adverse effect for the abrasion/ disturbance of substate on the seabed, physical change to another seabed or sediment type.

CC clarifies that they are assessing for a potential adverse effect on integrity (AEoI) for this project with other projects as well. For the project alone, there is no potential adverse effect. The standard mitigation hierarchy approach has been utilised when considering the potential for AEoI on any affected National Site Network sites.

Two sites were also considered for the potential for Annex 1 habitats (Flamborough Head SAC and Humber Estuary SAC). After the assessment, neither site was at risk of AEoI for both the project alone and in combination with other projects.

 Recent modelling states that any significant deposition will not reach the Flamborough SAC, and the only potential effect could be from



- saltation rate changes. The designated features within the SAC are considered not to be sensitive light saltation rate changes.
- The Humber Estuary had potential concerns with sediment transport, which could risk the supporting processes – CC states that ongoing conclusions are being done, but at the moment there are no potential adverse effects (from the project alone or in combination with other projects in the area).

For the Humber Estuary, considerations are being taken for the cofferdams to ensure the conclusions stay valid. In terms of Dogger Bank, they are waiting for the EIA assessment to be finalised, and then they will consider the wording (linking back to LB's comment on terminology) throughout the assessment and make sure that it aligns with the plan level HRA.

Another meeting ill be sent up to discuss the potential compensation options with stakeholders who have not been involved in this process.

EJ questioned whether the impact pathways for the DB SAC habitat loss was specific. CC stated that this has been considered under another seabed type and will be made clear in the assessment.

EJ: Has the project come to a decision of whether it will be committing to remove cable and rock protection end of life. CC: The Project is not committing 100% at this moment in time and will look into potential options later. EJ queried whether this is being considered a permanent loss in terms of habitat in the assessment. CC confirmed it was.

# **PEIR comments**

Regarding a PEIR comment from the MMO "The MMO recommended that consideration is given to the impact of paint flakes (as microplastic pollution), originating from maintenance and operation (specifically application, cleaning and scraping off of corrosion resistant paints) of the Projects, on benthic receptors." RF: The Projects understands that paint flakes will be dispersed as small particles, but wonders how an assessment can be done, and how the projects paint flakes could be separated from other projects. We suggest that this is perhaps broadscale research but not EIA.

JP: states that any type of chemical should be considered early in the PEMP. This is usually how these types of impacts are considered,

ZT: agreed with JP, but further conversations with the technical advisors are recommended. Agreed that this is a wider research question and that there is no baseline available.

The PEIR comment from the MMO recommended that the potential increase in sediment contaminants from offshore infrastructure is considered as a part of the monitoring for the projects. RF: An updated paper looking into metal emissions in North Sea sediments from galvanic anodes, showed levels were mostly within the known variability of North Sea sediments. Therefore, monitoring has not been included in the IPMP. JP: has no comments on this immediately. Have read the paper, but can't see why they would disagree strongly.

5. **AOB** RF



	PM questioned if the extent of the piddocks habitat was known. RF: a dropdown camera was used, and then grab sampling was done, which only identified the species at two locations in DBS East.  PM asks whether there is any geophysical data to see the general overlap with installation works (piling). RF is unsure whether the turbines overlap due to layout unknown at the moment, but it would be difficult to pull out those habitats in particular due to overlap with other biotope and structure. In addition, there will be pre-construction monitoring which would identify the extent of habitats.	
6.	Summary and next steps:	RF
	Carrying on with chapter finalisations	
	<ul> <li>Updates will be made to the chapter based on this ETG.</li> </ul>	
	<ul> <li>Minutes will be drafted and sent out for review.</li> </ul>	
	<ul> <li>Marine modelling, geotechnical and benthic monitoring report will be sent out also.</li> </ul>	
	ES to be submitted by May 2024.	
ID	Action	Owner
1.	Slide pack circulated after meeting with the modelling report, marine geotechnical and benthic monitoring report will be sent out also.	RF
2.	CM will define the wave return period in the ES	СМ
		1



# **Minutes of Meeting**

Dogger Bank South Offshore Ornithology Pre-ES ETG					
	Document I	Number: 005014169-01			
Meeting with:	Meeting with: Dogger Bank South Offshore Ornithology Pre-ES ETG				
Location:		Online – Microsoft Teams			
Start Time of Meeting:	1pm	<b>Date of Meeting:</b> 6 <sup>th</sup> February 2024			
Attendees	Initials	Role & Organisation			
	AM	Lead Scientific Case Support, RSPB			
	AD	Head of Case Work, RSPB			
	PC	Marine Lead Advisor, Natural England			
	EJ	Marine Senior Advisor, Natural England			
	RJ	Principle Advisor for Offshore Industries, Natural Engla	nd		
	MK	Senior Marine Ornithology Specialist, Natural England	t		
	RPV	Marine Lead Advisor, Natural England			
	ZT	Marine Licencing Case Manager, MMO			
	BF	Lincolnshire Wildlife Trust			
	HP	Offshore Consents Manager, RWE Renewables			
	DB	Offshore Consents Manager, RWE Renewables			
	AC	Offshore Consents Manager, RWE Renewables			
	CC	Marine Environmental Consultant , RHDHV			
	RF	Technical Director, RHDHV			
	MT	Ornithology Advice, MacArthur Green			
	SB	Graduate Environmental Consultant, RHDHV			
Apologies	Initials	Role & Organisation			
	RF	Senior Environmental Consultant, RHDHV.			
Meeting Agenda / Objective(s):		<ul> <li>DBS Project Update</li> <li>Discussion of key PEIR comments</li> <li>Presentation of preliminary ES results</li> <li>Presentation of preliminary HRA results for project alone key SPAs</li> <li>AOB</li> <li>Summary and next steps</li> </ul>	Э		



Item	Description/ Discussion	Presenter
1	Project design update since PEIR stage	AC
	AC presented a summary of the DBS Projects.	
	MK asked how the boundaries of the two arrays have been amended regarding the offshore ornithology data.	
	AC stated that images have been discussed previously, and can circulate after the meeting. A large range of factors were taken into account in the refinement of the array boundaries. From an ornithological perspective, MT pulled together density mapping data based on the site-specific aerial survey data. This was looked at to indicate areas within The Crown Estate lease options that showed higher or lower densities of birds. There was not significant variation, so ornithology was not a key driver in the refinement decision, but did influence it. ACTION – RHDHV to issue further detail on the process undertaken in order to reduce the array areas. <i>Post-meeting note: See Appendix 1 to this document</i> . AC summarised the current DBS programme, with DCO submission scheduled for late May 2024.	
2.	Key PEIR Comment Discussion	MT
	Key PEIR comments were presented on the slides.	
	PEIR was based on only 12 months worth of data. MT confirmed the	
	assessment will be based on a full 24 months.	
	RJ asked if the baseline data she received was averaged? MT confirmed data sent through previously was the averages, data for each individual survey is presented in the ES appendices).	
	RJ highlighted the importance of seeing monthly data to compare years given the avian influenza situation, with one year of the DBS dataset being before and one during the outbreak.	
	RJ advised that NE cannot accept the baseline data, without having reviewed the following appendices. <b>ACTION - RHDHV to issue the below draft ES appendices to stakeholders for review.</b>	
	<ul> <li>Appendix 12-2 Baseline Information and Methodology;</li> </ul>	
	<ul> <li>Appendices 12-3a-c Monthly Abundances;</li> </ul>	
	<ul> <li>Appendices 12-4a-c Monthly Densities;</li> </ul>	
	<ul> <li>Appendices 12-5a-c Seasonal Peak Abundances;</li> </ul>	
	<ul> <li>Appendices 12-6a-c Seasonal Peak Densities;</li> </ul>	
	Appendix 12-7a-c Survey Abundances;	
	Appendix 12-8a-c Survey Densities; and	
	Appendix 12-9 CRM Inputs and Outputs	
	Appendices and other materials already issued pre-meeting on 1st February;	
	Appendix 12-9 Collision Risk Modelling Inputs and Outputs	
	7 J. 11 J. 1	



- Appendix 12-13 Population Viability Analyses
- Monthly Density Values
- Monthly Abundance and Distribution Figures

RJ requested density mapping.

RJ also asked if additional context from the area (e.g. other surveys or MERP data sets) was utilised to help with mitigation at design stage to identify the hot spots. MT stated that for the input to the site refinement exercise, simplified spatial models were used which did not include covariates, just a spatial smoother. MK/RJ requested these spatial plots be provided to assist NE in understanding the site refinement.

# ACTION - RHDHV to issue density figures which were considered during refinement of the array boundaries.

Post meeting note – Figures to be worked into a presentable format, to follow shortly.

 There was a recommendation from NE at PEIR to provide modelbased density surface maps.

MT confirmed he has not undertaken this for use in the assessment as they are not appropriate for EIA. These are more useful for assessing change over time or before/after development. The baseline site characterisation densities and abundances used in the assessment have all been derived using design-based methods.

RJ asked whether the distribution figures (currently one per species combining all 24 months data) could be provided for subsets of the data (e.g. seasons, months and possibly separately for each year). RJ stated if they were separated by season, it would make the interpretations easier. MT agreed that these could be provided. NE requires the methodology undertaken to be presented with the baseline data in order to close this comment.

# ACTION – MT to produce revised distribution figures (for the tech appx) with greater temporal breakdown for more abundant species.

At PEIR the buffers from the two array sites overlapped. ~NE questioned how this was accounted for in the assessment.

MT confirmed that there is no overlap following the boundary changes – Array Areas are a minimum of 8km apart, so even the 4km buffers don't overlap. The combined assessment for DBS E & DBS W is now simply a sum of the individual site numbers. NE confirmed that this comment could be closed.

MK asked whether the assessment makes any consideration of the zone between the Array Areas and whether displacement effects would be different. MT confirmed that displacement effects between the Array Areas are not treated differently to any other location.

• Reference population sizes.



MT stated that, as per NE advice provided with the PEIR, for three species (kittiwake, guillemot and puffin) the assessment has now used alternative reference population estimates (breeding BDMPS: figures provided by Natural England). NE confirmed that this comment could be closed.

• A point was raised that the demographic rates should be checked.

MT confirms that these were checked and updated where needed.

Displacement from the Arrays during construction (and decommissioning).

MT stated that for the construction assessment, 50% of operational displacement has been applied in line with NE advice and added to displacement around construction vessels. MT confirmed that it will be the same for decommissioning but clarified that the decommissioning assessment conducted for the application simply cross references construction. NE confirmed that this comment could be closed.

• Collision risks for migratory seabirds (e.g. Artic Skua and tern species) were negligible and therefore no assessment required.

RJ noted NE cannot comment until they see the numbers. MT confirmed they will be in the technical appendix provided with the application.

Post-meeting note – Draft CRM numbers for migratory seabirds included in Appendix 12-9, aim to reach agreement with NE on these numbers prior to submission.

 DBS assessment has used the recommended avoidance rates for gannet, but the micro and macro data have been combined into an overall avoidance rate for simplicity (avoids need to adjust input densities).

AM requested that gannet collisions without the NE advised macro avoidance adjustment (of 60-80% or average 75%) also be provided.

MT confirmed that collisions without macro-avoidance (i.e. at an overall 99.3% avoidance rate) can be included for the RSPB.

MT further highlighted that in the baseline data it is important to be aware that while the average abundance estimates for DBS East and West can be summed to obtain the DBS East and West total, the same is not the case of the 95% ci or the SDs because summing (or averaging) these metrics is not appropriate. Instead it is necessary to sum the value in each month for each individual bootstrap (i.e. 1 to 1,000) for DBS East and West and then calculate the SD and 95%ci on the summed data. For this reason the E+W lower and upper 95% ci are not simply the E 95% ci plus the W 95% ci.

The same applies when seasonal totals are compared with their constituent months or to the annual totals – the confidence intervals and SDs cannot be



derived from the component 95% cis and SDs, but rather need to be calculated by first summing the relevant data.

#### ACTION: MT to provide explanation of these analysis points in Appendices

#### **Further PEIR comments**

The use of PVAs and the 1% population threshold.

MT stated that, as per NE advice, for impacts exceeding 1%, then PVA has been used to further investigate the potential effects. NE confirmed that this comment could be closed.

 HRA – additional sites screening and the consideration to screening further to birds outside the breeding season.

MT confirmed that additional SPAs have been screened in as per NE's request for non-breeding impacts, which includes locations as far north as Shetland. NE confirmed that this comment could be closed.

 PINS comment: Proposal to scope out barrier effects during construction.

PINS raised a concern around the intention to scope barrier effects out of the assessment. MT noted that the Natural England advice states that due to the difficultly of distinguishing barrier effects from displacement, the former should not be assessed as a separate impact. Accordingly, barrier effects have not been assessed as a standalone impact but are assumed (as per NE guidance) to be included within the assessment of displacement. NE were asked to confirm they were content with this approach.

MK / RJ discussed this point (and potential cases where barrier effects could be relevant) but agreed that this was not the case for DBS (i.e. NE supported barrier effects being scoped out).

AM stated that in previous assessments birds on the water have not been included in the displacement, and that's why there's sometimes confusion between displacement and barrier effects. He doesn't think this issue is appliable to these Projects due to all birds being assessed, but wanted to mention it.

MT confirmed that displacement has been assessed on the basis of all birds (in flight and on the water) and therefore has followed the NE guidance.

#### Methods: Bootstrap resampling inc. autocorrelation:

MT explained the method which was developed during the Five Estuaries project. A technical report with details on this has been accepted by NE. This will be presented for the DBS Projects and included with the Application. NE is provisionally satisfied with the outlined approach and will provide further comment as necessary once the full baseline data and methodology reports are received.

# **Environmental Impact Assessment:**



# **Construction displacement:**

Tables of summary impact estimates as copied from the assessment were presented.

MT went through the tables (see slides for further detail), detailing the summary of each bird species assessed in the EIA.

# **Operation displacement:**

MT ran through the tables. (See slides for further detail)

Only one species exceeds the 1% - Razorbill exceeds 1% (1.3% at worst case 70% x 10%)

RJ- queried the summary tables of displacement (in the meeting slides) which stated displacement had assessed using an upper value for razorbill of 80%.

MT confirmed this was a typo and that the actual values used were the advised ones of 30% to 70% for the Auks and 60% to 80% for Gannets in displacement.

ACTION - MT to check correct values have been stated in the output tables.

# **Operation Collision Numbers:**

MT stated that the tables are combined totals for East and West.

These are the worst case mean averages for the Turbine 1 scenario (100 turbines in each site).

Key findings:

- Gannet and large gulls very few collisions.
- Kittiwakes are the highest but even WCS upper 95% estimate raises mortality by less than 0.5%.

AM asked whether the gannet figures included the higher macro avoidance rate (75%). MT confirmed this was with the 75% figure.

### **HRA**:

# Preliminary output DBS alone – FFC as this is the SPA of most interest.

RJ asked about apportioning of age classes: were site specific data used? MT stated that the adult 60% figure is demographic based (Furness 2015). RJ stated that NE's position is unless site specific data are presented they will assume all birds (in the breeding season) are adults.

MT queried if other general context evidence on age structure can be used. RJ/MK stated that Natural England would have to see it. A precautionary approach would be expected if there's not enough evidence.

**ACTION – MT to review at sea survey data for the age structure. NE approach to be presented alongside demographic approach.** This would apply to all species.

AM questioned why Bass Rock was not included in the breeding adult abundances.



MK stated that NatureScot might need to be consulted if Bass Rock and Berwick Bank.

MT responded that this was based on tracking studies (eg Wakefield et al. 2013) which show colony segregation of foraging areas.

MT stated that the apportioning <u>percentages</u> were calculated using the colony sizes in the Furness (2015) BDMPS report rather than the updated Seabirds Count data to ensure consistent and contemporaneous data were used, but the assessed impacts use the most recent counts available.

RJ asked what year the gannet count was from. MT stated the most recent (2023) was used.

MK made the point that the population counts used should correspond to the timing of the surveys – i.e. 2021 and 2022.

MT stated that maybe the gannet was the only one that used a more recent count (e.g. 2023) as it is the most closely monitored and that for most species it is likely that the counts are in fact from 2022. MT suggest potentially using the data from that year instead. RJ agrees – MT needs to check this.

ACTION – MT to check date of gannet data source used and update as appropriate.

#### Preliminary outputs DBS alone for kittiwake collision risks in the FFC.

AM commented if St Abbs was included then the assessment must consider that Scottish kittiwakes behave differently and will have displacement mortality. AM adds that if it was included, that will bring in cumulative issues with the Scottish site.

**ACTION** - MT to check if St Abbs is considered.

Post-meeting note - Potential effects on kittiwake, guillemot and razorbill from the St Abb's Head to Fast Castle SPA have been assessed within the RIAA.

# Preliminary outputs DBS alone for guillemots displacement risks in the FFC.

RJ / MK stated that the interest in month-month data is because it would be good to see if there was a peak in the August - September period. There was a pronounced peak in the Hornsea 4 data, and advice that a separate post-breeding season be considered to consider that peak (rather than just breeding and non-breeding seasons).

RJ suggested a similar approach to razorbill, so having another season with a different proportioning %.

MT questioned what displacement mortality rate would be appropriate for this two month period: 10% mortality would be quite an extreme magnitude for such a short period. MK agreed, but stated that consideration should be given to 70% displaced and 5% mortality - which was agreed in Hornsea 4. MK suggest looking into this element of the quillemot assessment a bit further.

ACTION – MT to review guillemot data and potential presence of any peak abundance



5. **AOB** MT

#### Sandeel fisheries closure

MT asked where the sandeel fisheries closure fits into compensation, and Natural England's view on the matter.

MK/RJ stated that from their understanding, Defra sees it as a conservation measure for seabirds but does not see it as a compensatory measure. MK stated that this is a policy matter rather than an ecological matter so Defra would need to be approached.

RJ stated that its not compensation from her understanding – legally not considered/labelled compensation.

AM stated that closures will hopefully increase the resilience of the population. The resilience is something that we consider and in terms of populations themselves, quantifying the reliance is difficult in terms of kittiwakes. He states that translating it numerically is difficult.

### Kittiwake compensation

PP stated that there is no intention to repeat discussions held within The Crown Estate (TCE) process on a project level as all parties here are engaged (through the Steering Group or Expert Working Group).

MK stated it would be good to see anything you plan to submit in terms of the kittiwake, even the broad nature of the measure.

PP stated that DBS would provide a sign posting document to provide context for the Examining Authority on the documents produced by TCE/NIRAS and how they fit with our application. There is no need to provide additional documentation which would confuse matters

MK - NE keen to discuss approach once TCE plan is signed off.

ACTION – RHDHV to explore potential for meeting to discuss final TCE kittiwake compensation proposals and how it will be incorporated into the final submission.

# **Auk compensation**

PP – dates have been circulated for a meeting, building on preliminary meeting in May 2023. By-catch and predator control are being proposed as measures, and potential sites for predator control will be presented. DBS will circulate materials in advance of the meeting.

#### Red-throated diver (RTD)

EJ - it would be useful to know the assessment for RTD and any mitigation that has been applied.

MT stated that the offshore cable route just crosses the top of the Greater Wash SPA, and RTD density estimates were found to be low across where the cables would be installed. The assessment was calculated using the SPA designation



data, and what % of the SPA is potentially affected by cable installation – all low densities were found.

For operation and maintenance a port has not been selected, but its likely that the vessels will cross the SPA and a best practice mitigation will be applied. No adverse effects on integrity were found.

EJ asked whether the wintering period can be avoided for construction, especially in combination with Dogger Bank D.

MK stated that a seasonal restriction is not currently considered necessary for DBS. Recommended NE look at the cable route in terms of spatial displacement of birds as per the Dudgeon and Sheringham assessment as DBS taking a similar approach.

AC stated up to three vessels operating in the nearshore area simultaneously as considered as a worst cast associated with the export cable landfall works.

MK asked if there is an option for cofferdams in the inshore area. AC confirmed this is included in the envelope but is not the preferred option. MK accepts that but it might need to be added into the assessment.

ACTION – MT to consider assessment of RTD in relation to landfall & near-shore works.

Post-meeting note: Cofferdams have since been removed from the project design envelope.

Action ID	Action	Owner
1.	RHDHV to issue draft ES appendices to the ETG for review.	RHDHV
2.	RHDHV to issue density figures which were considered during refinement of the array boundaries.	RHDHV
3.	MG to produce revised distribution figures (for the tech appx) with greater temporal breakdown for more abundant species	MT
4.	MT to provide technical note on summing months and seasons across projects etc. for inclusion in Appendices on this point	MT
5.	MT to include a technical note on autocorrelation boot-strap methods (poss. Five Estuaries doc)	MT
6.	MT to check correct values have been stated in the collision / displacement output tables.	MT
7.	MT to review at sea survey data for the age structure	MT
8.	Double check which count year was used for FFC SPA gannets in the HRA (2023 or 2022?).	MT
9.	MT to review guillemot data and potential presence of any peak abundance, with focus on post-breeding period	MT
10.	MT to consider assessment of RTD in relation to landfall & nearshore works	MT



11. RHDHV to explore potential for meeting to discuss final TCE kittiwake compensation proposals and how it will be incorporated into the final submission.

# **Appended Documents**

- Appendix 1: DBS East and West Array Area Refinements
- ES Appendices:
- Appendix 12-2 Baseline Information and Methodology;
- Appendices 12-3a-c Monthly Abundances;
- Appendices 12-4a-c Monthly Densities;
- Appendices 12-5a-c Seasonal Peak Abundances;
- Appendices 12-6a-c Seasonal Peak Densities;
- Appendix 12-7a-c Survey Abundances;
- Appendix 12-8a-c Survey Densities; and
- Appendix 12-9 CRM Inputs and Outputs
- Appendix 12-13 Population Viability Analyses



### **Appendix 1: DBS East and West Array Area Refinements**

The Crown Estate Leases for the DBS East and West Projects require a minimum power density of 5MW/km<sup>2</sup>. To support the consenting process for the DBS Projects, it was decided to reduce the Array Area footprints in advance of application for a Development Consent Order (DCO). Full details will be provided in the Site Selection Chapter of the ES, but a summary of the process undertaken is included here for information.

Three comparative LCOE based footprint studies were completed alongside a review of site-wide constraints. The purpose of the site constraints analysis was to look in more detail at the Project footprints for DBS East and West, exploring possible layouts that minimising contact with qualitative site constraints such as consenting, site investigation, and logistics.

Through 1:1 interviews with experts, a better understanding of each constraint and the potential impact was documented and scored on a scale from 0-5. A workshop was hosted with each expert with the following scoring agreed for each topic:

- 0 = not considered to be a constraint in the scope of this assessment
- 1= low probability, low impact; slight influence on business case and deliverability
- 2= in-between
- 3= medium probability, medium impact; moderate influence on business case and deliverability
- 4= in-between
- 5= high probability, high impact; high influence on business case and deliverability (high expectation of serious delivery risk and potential feasibility problems)
- NG= no go
- OOS = out of scope of assessment

Results of the scoring are presented in the following table:

Constraint	Risk	Score	Mitigation
Boulders	Cable laying risk	3 - high density 2 - lower density	Avoid as much as possible
Glacial tec- tonic defor- mation (western thrust for- mation)	Uncertain/variable ground conditions and re- quirement for conserva- tive foundation design	3	Avoid as much as possible



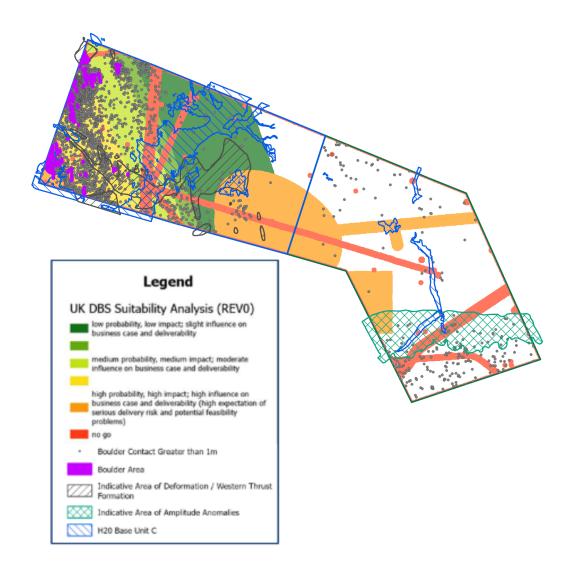
Channelised unit	Jack-up vessel punch through risk due to low strength clays Need to consider OCP lo- cation	2	Potential JUV H&S concern OCP micrositing and mitigation through engineering Avoid as much as possible
Seismic anomalies	Cable laying challenges Need to consider OCP lo- cation	2	Avoid as much as possible Array cable design to mitigate thermal properties in these regions
Birds	Bird collision and displace- ment poses a high con- senting risk. Potential for project delay or consenting refusal.	Razorbill - 4 Kittiwake - 2 Guillemot - 3 Gannet - 1	Avoid as much as possible.
Aviation & Radar	Mitigation currently unclear, but likely to take the form of an upgrade to the MoD radar. Potential for project delay.	5 - Red (250 mMSL**) 4 - Brown (300 mMSL) 3 - Orange (336 mMSL) 2- Yellow (350 mMSL) 1 - Blue and Pink (400 m and 452 mMSL)	Avoid as much as possible.
Benthic Habitats	Consider cable burial risk assessment. If increased cable protection required, poses a consenting risk. Limited differential across Array Areas due to homogenous habitat	OOS (lim- ited im- pact)	Engineering consideration: more cable protection.



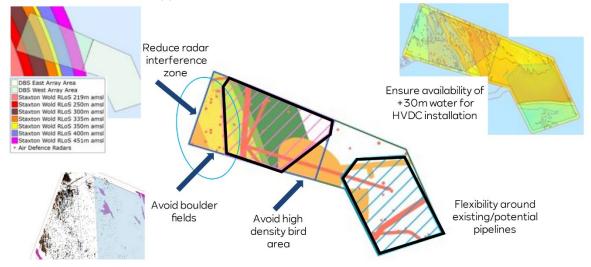
Boulders	If project needs to clear many boulders, it presents a consenting risk due to benthic habitat disturbance.	3 - high density 2 - lower density	Avoid as much as possible.
Fisheries	Low score, as very low activity in the Array Areas, and commitment made to mitigation where required.	1	N/A
Wrecks	For surveyed wrecks apply buffer that allows for foundation footprint and micrositing.	NG	No Go zone.
Shipping & Navigation	No score as very low activity in the Array Areas with no differential in data.	OOS (lim- ited im- pact)	Despite no spatial score, this is a potential H&S concern, hence to be considered when determining project boundary alignments.
Water depth required for installation of OCP top- side	Vessel required for heavy lift of OCP topside would require deep water (28m+). Risk of limited vessels per- forming the lift in shal- lower water.	1	Fix converter plat- form location in deeper water. Possible alternative topside installation approach (floatover etc) to mitigate water depth constraint.
Foundation installation vessel	More expensive vessel spread required for foundation installation water depth under 19m.	1	Consider more expensive vessel spread for foundation installation under 22.5m.

The key constraints to be avoided include areas of high boulder density, areas of high bird population/breeding density (particularly razorbills), and an area of potential interference with the MoD's Saxton Wold air defence radar. The other identified constraints are softer or can be more easily mitigated through design. The scoring exercise identified the following outputs in constraints mapping:

# **RWE**



The above constraints mapping resulted in the following areas being taken forward for the final ES assessments and DCO application:





Dogger Bank South Offshore Wind Farms

# **Final Minutes of Meeting**

DBS Fish and Shellfish ETG					
Document Number: 005014170-01					
Meeting with: DBS Fish and Shellfish ETG					
Location:		Online - Microsoft Teams			
Start Time of Meeting:	11am	11am Date of Meeting: 23rd February 2024			
Attendees	Ro	le & Organisation			
	OW MarineSpace				
	RF	Senior Enviro	nmental Consultant, I	RHDHV	
	DB	Offshore Conse	nts Manager, RWE Re	newables	
	AP	Offshore Conse	nts Manager, RWE R	enewables	
	SB	Graduate Envir	onmental Consultant	, RHDHV	
	ZT	Marine Lice	nsing Case Manager,	MMO	
	LC	Marine Lice	ensing Case Officer, N	ИМО	
	CR		Cefas		
	GE	Cefas			
	RF	Cefas			
	PC	Marine Lead Adviser, Natural England			
	EJ	3			
	RPV	RPV Marine Lead Adviser, Natural England			
	AA	Senior Specialist, Natural England		and	
	SD	Senior Specialist, Natural England		and	
_	MK	Principal Adviser, Natural England			
	MW	Planning Spec	cialist, Environmental	Agency	
	BF		Lincs Trust		
Agenda	<u> </u>				
	•	Project Update			
	•	Draft Assessme	ent Findings		
Meeting Agenda/ Objective(s):		Potential Mitigo	ition Options		
		PEIR Comment	S		
		AOB			
Item	Description	n/ Discussion		Presenter	
1 Project Design Update				DB	
		relating to the pro	posed		
developmen			P		
3.515.5011101		<del>-</del>			



	To note, following the Physical Environment and Benthic & Intertidal ETG	
	on the 29 <sup>th</sup> January, the use of cofferdams within the intertidal area has	
	been removed from the design envelope.	
2.	Fish and Shellfish - Draft Assessment Findings:	OW
	Liam Dickson (LD) (underwater noise specialist) – on sick leave so OW will be speaking on his behalf, and if unable to cover questions relation to underwater noise, a written response will be provided in the minutes.	
	Revision to Underwater Noise Modelling:	
	OW stated that this is an opportunity to go over comments from previous ETGs. how these comments have been implemented into the chapter will be discussed.	
	<ul> <li>Integrated the 135db limit with the modelling.</li> </ul>	
	<ul> <li>Behavioural response thresholds – fish species (Spratt- 135db limit) – which is below the limit from the Popper et al (2014) paper.</li> </ul>	
	This limit is included in the assessment and was found to have no significant impact to fish and shellfish populations throughout the assessment. This lower threshold is discussed throughout the chapter.	
	Two pieces of embedded mitigation have been integrated:	
	<ol> <li>no piling along the Export Cable Corridor (ECC) during the Bank's herring spawning season (Aug-Oct).</li> </ol>	
	2) No monopiling will be undertaken along the ECC and within the Array Areas simultaneously (underwater noise related). However, this does not include pin piling as this would operate a lower hammer energy. Therefore, no need to mitigate concurrent pin pile activities due to low level noise.	
	SD queried if the mitigation to 'no pilling along the ECC' included both monopile and pin piling? OW stated yes for both pin and monopiling. He clarified that 'no piling' refers to any form of piling.	
	Figures:	
	Monopiling at two locations within the Array Area. Extreme north     of DBS West and extreme south of DBS East.	
	<ul> <li>Model represents the worst-case extent, based on the Popper et al (2014) paper thresholds. 135db limit for behaviour impacts (pink border).</li> </ul>	
	- The inner (yellow) border is the 186db threshold for TTS.	
	<ul> <li>Concentric circles for potential injury and potential moral injury, 203 and 207db respectively.</li> </ul>	



- 2. Monopiling along the ECC: The figure shows the same layout as the Array Areas.
- 3. Pin-piling taking place at the three locations which created the greatest spatial distribution (DBS East, DBS West, and along the ECC).

SD referred back to the 135db limit in first figure (Monopiling at two locations within the Array Area). There is an overlap with the inshore high and very high Herring spawning potential area. How was no significant effect found with the behavioural threshold?

OW stated that the Popper  $et\,al\,(2014)$  paper mentions that the findings within the paper should not be used in underwater noise modelling, nor in the assessment in fish and shellfish species. Any behavioural impacts were observed changes, such as movement or a jump in the shoal. Therefore, any changes at a population level were not deemed as significant. This is discussed more in the chapter and can be provided as a written response post-meeting by LD if needed.

SD stated they will review the methodology and outputs of the assessment. Food web interactions between forage fish and their function as prey species for predators (birds and marine mammals) and links to protected sites should be considered in the HRA. To date no RIAA or MCZ assessment has been provide for comment.

GE stated that they were asked to provide comments on the slides (which had been sent to the MMO) and will briefly discuss the 135db here. Modelling for the 135db has its limitations, but Cefas believe it is the most appropriate threshold to use (that has been peer reviewed) when modelling behavioural responses. This is a threshold Cefas have continued to recommend and so agree with this use, but we do not support the embedded mitigation for herring.

The 135db threshold overlaps a large portion of the spawning grounds off Flamborough head. Due to the monopiling in the Array Area they do not support the embedded mitigation. Cefas recognise the embedded mitigation in the ECC, but believe that suitable mitigation is required for the Array Areas due to the potential disturbance of the spawning ground and the potential for population effects.

OW acknowledged this.

AA confirms that Natural England agrees with Cefas in the use of 135db threshold. There is also the need to include prey availability for predators (kittiwake etc.). A more localised impact (specifically Flamborough Front)



would need to be considered in the assessment in regard to kittiwake and herring – not just a population size.

# **Post-meeting note**

The 135dB re  $1\mu$ Pa<sup>2</sup>s SELss threshold has been modelled, following the request from Cefas via MMO, with supporting text outlining the major limitations of this approach.

Initial comments described concerns of the potential for an acoustic barrier to herring as they follow their migration clockwise through the central North Sea. Although there is limited overlap of the 135dB threshold with areas of high or very high spawning potential, the majority of these areas are not overlapped and a corridor along the coast is maintained. Furthermore, the 135dB threshold proposed is based on a 50% response rate where the response identified was minor, being restricted to a change in schooling density/change in orientation of the fish. Therefore, it should not be considered a boundary marker within which 100% of fish will exhibit a fleeing response, Furthermore, there is no evidence of the creation of a barrier effect at this level.

While the Hawkins *et al.* (2014) threshold has been used in the assessment at the request of stakeholders and against the advice of the paper authors, there are differences in baseline noise levels and study species. The Dogger Bank is likely to have higher levels of background noise when compared to a quiet coastal lough, such that exposure to high ambient noise may have a habituating effect leading to a weaker, or lack of, response compared to the received levels alone, as observed in fish in Chapman and Hawkins (1969), and in Peña *et al.* (2013). Whilst it is acknowledged that impulsive noise at the 135dB threshold may, in the specific circumstances considered in the reference study, result in behavioural responses in 50% of exposed fish, information within Hawkins *et al.* (2014) strongly indicates that this threshold is not likely to cause impacts at a population level.

# **Revision to Sandeel and Herring Modelling:**

# Sandeel modelling:

- The Projects have now undertaken site specific surveys, including benthic sampling.
- Integrated site-specific data (sediment and Drop-Down Video) and have been included in all relevant figures.
- This has helped characterise the sandeel environment/habitat within the chapter.

OW



### **Herring modelling:**

Breakdown of the component layers has been provided in seven additional figures alongside the heat map. The heat map includes the international larvae survey, catch data, benthic data and more.

For both sandeel and herring, comments were received on the disapproval of providing tables that indicate quantification of potential species presence across the area. OW stated those tables have been left in to provide further context in the chapter but it has been made clearer that these have not been used in the actual impact assessment.

### Sandeel figure:

- Potential habitat modelling: The dots represent sandeel presence: blue present and grey not identified.
- Modelling has provided fairly accurate out in the Array Area with sandeel presence revealed through survey aligning with areas of high habitat potential.
- No sandeel were identified along the ECC beyond KP120.

SD queried if the ES outlined details of the site-specific survey. Drop-Down Video (DDV) is not a commonly used survey technique for sandeels and it was not a sandeel specific survey, the efficacy, limitations, and benefits of this approach with respect to sandeel should be included in the Fish and Shellfish chapter. Natural England consider that this method will likely only provide anecdotal/qualitative evidence of sandeel presence and/or habitat suitability. We would also advise to include details relating to the survey such as dates, visibility, conditions, frequency, and specific locations of sampling. This is due to the high interannual variability that has been observed in other sandeel areas.

OW stated that the sandeel data from the site-specific surveys were not integrated in PEIR. OW explains that there are no discussions on the site survey in the chapter to date.

DB stated that within the benthic chapter, the video survey and benthic survey provide the data that feeds into this figure and that those extra details will be available in the chapter appendices.

SD requests this is sign posted in the Fish and Shellfish chapter.

AA agreed it would be useful to sign post it and for the limitations of the survey to be discussed within the Fish and Shellfish chapter as this isn't the standard way to collect sandeel data, therefore it would be useful to have this placed in the chapter.



OW stated this is acknowledged and will be considered for inclusion in the chapter.	
Other Updates:	(
OW stated the other changes made since PEIR comments.	
Regarding sediment plume modelling integration, OW wanted to discuss the wording of embedded mitigation along the ECC. Embedded mitigation currently states that: no piling will occur during banks herring spawning season.	
Comments received at PEIR stated that there was potential for the license condition to be written as 'no construction works' to take place along the ECC.	
Following design development, OW stated that limiting the embedded mitigation to only piling is suitable based on physical processes modelling and the sediment composition found along the ECC.	
OW asked attendees for thoughts and opinions.	
GE stated that Cefas made that comment. There is a concern of herring disturbance along the ECC, especially during the spawning period (August – October inclusive). Cefas feel that this is a hotspot for herring during spawning and suggest that there is a review of the modelling. That is why Cefas have recommended no works (e.g., sand wave levelling, seabed clearance) during the spawning season in the cable corridor.	
OW presented the previous herring figure/map (titled 'Monopiling at two locations within the Array Areas') and stated his understanding with what Cefas is saying. It was queried if there is the potential to revise the wording of the comment – e.g., to specify where the high and very high herring spawning potential areas are located. Suggesting approximately KP20-KP60 and asked if there is room to alter that condition.	
GC confirmed that this is possible and spatially specific mitigation (e.g., KPX-KPX in specific areas) could be applied to allow works to continue in other parts of the ECC. It would be useful for the KP points to be overlaid on a heat map (with the sediment map) to identify the specific areas of the ECC which are within high/very high potential spawning habitat. That medium potential spawning habitat looked at where the larvae are caught, but this is not necessarily the spawning site.	
OW asked for a written response on the ideal figure.	
GC stated she will follow up with an email on this through the MMO (Update: This has been provided in MMOs formal written response to the ETG).	



EJ asked to double check the embedded mitigation, and if it is being secured though DCO conditions.

DB stated that it is under the marine licensed conditions and/or requirements.

ZT: Asked if they can receive the marine license before examination? DB stated that this can be arranged and will be in touch (action).

## Other questions:

RF asked GC about the potential mitigation in ECC. The ECC runs close to the Hornsea 4 ECC, and do not have a restriction on works along the ECC in their licence.

GC stated she cannot comment on the guidance given for Hornsea 4 without looking back at that information, but Cefas probably recommended the same. What was recommended can be reviewed and Cefas will respond with advice in a written response.

#### **CEA - Screened in OWF:**

OW presented the list of schemes included in the CEA. These tables separate out the OWF export cables but will be included with the OWF within the chapter.

EJ stated that Eastern Green Link (EGL) 3 and EGL4 are currently doing their scoping consultation with the MMO and stated they will be going through the Projects study area. The MMO comments for scoping are due this week, so the scoping date should be soon.

## **Post Meeting Note:**

EGL3 and EGL4 will be included within the CEA. Due to the current stage of the Projects and submission due in May 2024. The CEA has been based on information available on each relevant scheme as of January 2024.

## **CEA Draft Conclusions:**

Impacts that were taken through to assessment are:

- Underwater noise and vibration
- Permanent habitat loss

The conclusions in a cumulative context were minor adverse and not significant in EIA terms.



The chapter provides more detail but OW wanted to quickly touch upon the outcomes (new since PEIR and last review of chapter).

SD commented that Natural England would want to see the evidence base (for underwater noise) and the studies used to understand how that conclusion was reached. In addition, why has the cumulative loss of habitat been set against the fish and shellfish study area in terms of percentage and why this area has been used. CEA usually uses larger areas, by using the study area, it limits the cumulative effects.

OW acknowledged the comment and will ensure that this is fully explained in text within the chapter.

MK asked if the concurrent piling result being deemed as 'low' is based on the that of other projects.

OW stated that this is LDs area of expertise, and so Natural England will have to wait for a written response from him (this is presented in the post-meeting note below)

MK stated that the assessment should be based on the set of worst-case scenarios and not assumptions.

#### Post meeting note:

For the CEA assessment of behavioural effects, the 135 dB re 1  $\mu$ Pa2s SELss disturbance threshold is based on a single strike, and represents an instantaneous behaviour response, as opposed to a response to a cumulative noise source (e.g. SELcum). Due to the impulsive nature and extremely short duration of single pile strikes, there is a negligible likelihood for additive effects for single strikes, particularly across multiple projects where strikes are outwith a single array. The combined impact of single strikes within a greater area causing an exodus of fish from the region is not considered realistic, as the 135 dB re 1  $\mu$ Pa2s SELss disturbance threshold was not observed to elicit a swimming away or fleeing response in fish, but rather a change in school density (or change in orientation) in 50% of schools (Hawkins et al., 2014). Furthermore, herring have been observed to be tolerant to impulsive sources in areas of high ambient noise (Peña et al., 2013).

# **5.** Further Questions

EJ stated that without seeing the full details of the analysis of the methodologies and modelling approach, the NE cannot provide written agreement. Written agreement will only be provided after looking into these reports and are happy with all the approaches taken.

RF



SD noted that in terms of protected sites and features, it would be useful to see the role of sandeels and herring in the HRA and be sign posted in the ES chapter.

The Dogger Bank SAC conservation advice mentions sand eel as a key prey resource. SD stated it would be good to set out:

- The role of sandeels as prey for protected features. Dogger Bank SAC currently has a restore objective for structure and function, with the biological structure noting sandeels and characteristic predator species show that Dogger Bank supports species of wider importance across the North Sea and it is an important area for connectivity across the MPA Network.
- Predator species links e.g., Southern North Sea SAC (harbour porpoise). SNS SAC site has a Conservation Objective that prey availability is maintained (they are opportunistic feedings but are known to feed on sandeel and herring).
- Ornithological features: e.g., evidence of Kittiwakes ofrom the Flamborough and Filey Coast SPA (restore objective) – Forage at dogger bank and are dependent on sandeels during breeding season.

RF confirmed that in another ETG it was discussed that sandeels are an important resource for marine mammals and it is being thought out.

MK stated he understood the challenges with the cross-topic events but stresses their importance and asked how this will be presented in the most useful and clearest way.

OW asked if this was a combination between marine mammals, fish, and ornithology etc?

MK confirmed this due to the sandeels being an important characteristic in the community. This can be difficult, but linking between these technical elements would be something to consider and reflect on. MK also suggested including benthic impacts/roles in the community.

DB asked if Natural England could provide a more focused question, to help to understand what is needed to present. A specific linkage question would be helpful to help us understand exactly what to include (*Update: Post meeting note provided by Natural England on 21st March 2024 (DAS/464371)*).



3.	OW / LD to provide post-meeting notes were needed – provided in the above sections	OW
2.	Provide marine license applications to MMO before examination – provided to the MMO (10 <sup>th</sup> April 2024).	DB
1.	Provide a written response on the 'ideal figure' of the herring spawning along the ECC – provided within MMO response 3 <sup>rd</sup> April 2024	GC
Action ID	Action	Owner
4.	AOB - No further questions.	RF
	RF stated that this is acknowledged and will be taken away and discussed internally.	
	AA stated that there may be communication issue within the ES if this is not covered. She stressed that this needs to be covered, especially with cross-cutting context within the supporting documentation.	
	SD noted that the role of foraging fish within the wider ecosystem is important to mention in the ES, and the conservation objectives should be assessed within the appropriate assessment.	
	RF agreed that it would be more appropriate to include within the HRA as this is where the receptors are brought together. It would be more difficult to do in each chapter.	
	SD stated that the HRA has a link to birds and prey (sandeel and herring), so that would be a direct link within the HRA process.	



	Traffic and Transport ETG					
	<b>Document Number:</b> 005118065-01					
M	Aeeting with: Traffic and Transport ETG					
	Location: Online - Microsoft Teams					
Start 1	Start Time of Meeting: 10:30 Date of Meeting: 27 <sup>th</sup> February 20		2024			
Attendees Initials Role & Organisa		Role & Organisation				
		ST	Transport Planner, RHDHV			
		LT	Applicant Offshore Consent Manager	, RWE		
		SB	Graduate Environmental Consultant, F	HDHV		
		СВ	Graduate Transport Planner, RHD	HV		
		TW	Area 5 Manager at East Riding of Yorkshi	re Council		
		IS	Service Manager for Area 3 and maintenance of Yorkshire Council	at East Riding		
		AF	Transport Development Manager at East Yorkshire Council	Riding of		
Apologies Initials Role & Organisation						
		OC EIA Project Manager, RHDHV				
MB East Riding of Yorkshire Council						
	AA East Riding of Yorkshire Council					
Meeting A	<ul> <li>Project Updates</li> <li>Review of assessment findings</li> <li>Review of CTMP (Construction Traffic Manage Plan).</li> <li>Review of agreement/disagreements</li> <li>Protective provisions</li> <li>Next steps, ongoing engagement</li> <li>Any other business</li> </ul>			agement		
Item		Desc	ription/ Discussion	Presenter		
1	Project Design Update: Refinement of the Onshore Development Area  LT presented an update of the Project Design.  AA asked whether the impacts of the interaction with the Jocks lodge scheme had been considered.  LT clarified that there have been discussions with the Jocks Lodge team and how the respective projects interact. This includes discussions regarding Jocks Lodge potentially installing ducts for the Projects.  LT presented the updated timeline for the Projects.  LT asked if there were any questions.			LT		



	No questions or comments were raised by East Riding of Yorkshire Council.	
2.	Review of Transport Assessment findings  ST outlined a summary of the approach to the assessment of traffic within the ES.  ST described the construction scenarios that have been assessed in the ES (In Isolation and Concurrently) and why a Sequential Scenario wasn't assessed.  ST noted that no assessment of operational impacts was carried out, as agreed with East Riding of Yorkshire Council previously and no assessment of onshore effects from offshore construction and operation has been carried out as this will be managed by a Requirement to produce a Port Traffic Management Plan.  ST asked if the ETG have any comments upon these matters or if there was any initial feedback or comments on the draft ES.  No comments or concerns were raised by East Riding of Yorkshire Council.	ST
3.	Review of Transport Assessment findings (Amenity)  ST presented the findings of the amenity assessment from the draft ES. ST then described the proposed mitigation measures and how these would be secured through the Outline Construction Traffic Management Plan (OCTMP).  ST asked for any feedback or comments upon the amenity assessment/mitigation proposals.  TW asked about the direction of flow on links 4 and 5.  ST stated the direction has not yet been specified but could be. TW stated that there is a crossroads junction at the end of Link 5 – it can get congested with traffic and is a potential collision 'hotspot' – especially in the summer seasonal peak.  ST thanked the TW for the feedback and identified that this could be managed through the OCTMP to include a proposed route.  Action 1: ST to update the OCTMP to include this suggested routeing.	ST
4.	Review of Transport Assessment findings (Highway Geometry)  ST presented the findings from highway geometry assessment from the draft ES.  ST then described the proposed mitigation measures and how these would be secured through the OCTMP.  ST described the options to mitigate through road widening and passing places, but also the alternative to use a pilot vehicle/escort vehicle.  ST stated that at this stage mitigation measures have been left flexible but the Projects would need to agree the final form of mitigation with East Riding of Yorkshire Council through the development of the CTMP.  ST asked for any comments on the highway geometry assessment/mitigation proposals.  No comments or concerns were raised by East Riding of Yorkshire Council.	ST
5.	Review of Transport Assessment findings (Road Closures)  ST presented the findings from the road closures assessment from the draft ES and extensive package of embedded mitigation. ST then described the proposed additional mitigation measures and how these would be secured through the OCTMP.  ST asked for any comments on the road closures assessment/mitigation proposals.	ST



	AF asked about Park Lane, noting this is a National Cycle Route.	
	ST advised that Park Lane will remain open to pedestrians and cyclists and that this commitment is contained within the OCTMP.	
	TW asked if there will be a notification to all the local residents before the closures, e.g. farms, businesses etc. that could be impacted.	
	CB stated that when a notification to submit for the road closure, the notification will go out.	
	TW stated that there could be a benefit to advanced signage of the closure and a local letter drop of affected properties.	
	ST stated that signage can be used and potentially a letter drop or other digital means of communication may be possible.  Action 2: ST to review the OCTMP and include measures to make local road users aware of any potential closures.	
6.	Review of Transport Assessment findings (Capacity)	ST
0.	ST presented the capacity assessment from the draft ES.	31
	ST stated that there were four junctions that were identified by East Riding of Yorkshire Council as being sensitive and these were all modelled. The assessment showed that the junctions would be sensitive to further traffic flows and are all operating near to or at capacity. ST stated the two options proposed to mitigate the Projects' impacts are:	
	<ol> <li>Avoid e.g., arrive before the peak times in the morning and evening; or</li> <li>Utilise minibuses/car-share to reduce the peak number of employee trips.</li> <li>(Potentially a mix of them both)</li> </ol>	
	ST stated that at this stage mitigation measures have been left flexible but the Projects would need to agree the final form of mitigation with East Riding of Yorkshire Council through the development of the CTMP.	
	ST asked for any comments on the capacity assessment/mitigation proposals.	
	No comments or concerns were raised by East Riding of Yorkshire Council.	
7.	Review of Transport Assessment findings (Road Safety)	ST
	ST presented the findings from the road safety assessment from the draft ES.	
	ST noted that outline access and crossing locations and designs have previously been agreed with East Riding of Yorkshire Council.	
	ST noted that the detailed design of accesses, crossings and offsite highway works would need to be agreed post consent, likely via a Section 278 Highways Act agreement. ST noted that these designs would be supported by a Stage 1/2 Road Safety Audit. ST noted that this process is secured via the OCTMP.	
	ST asked for any feedback or comments upon the road safety assessment/mitigation.	
	No comments or concerns were raised by East Riding of Yorkshire Council.	
8.	Review of Transport Assessment findings (Abnormal Loads)	ST
	ST presented the Abnormal Load review in the draft ES.	
	ST indicated that the transformers for the converter stations will come from the Port of Hull via a previously approved route (for Dogger Bank A).	
	ST advised that National Highways and East Riding of Yorkshire Council's abnormal loads teams have also provided agreement in principle to the	



	proposed route. ST noted that a copy of the abnormal load study will be provided as an appendix of the ES traffic and transport chapter within the DCO application.  ST noted that as previously agreed with East Riding of Yorkshire Council, the routes and timing of these movements would be agreed post-consent through the development of the OCTMP and that this commitment is secured within the	
	OCTMP. ST asked for any feedback or comments on the abnormal load review.	
	No comments or concerns were raised by East Riding of Yorkshire Council.	
9.	Review of OCTMP	ST
	ST provided an outline/page turn of the OCTMP covering the main areas and how the OCTMP would be developed post-consent.	
	ST asked if there are any questions or comments on the draft OCTMP. TW stated everything appeared to be covered but did not see anything about controlling mud on the highway.	
	ST stated there is a section on this - Page 24: Control of material on the Highway with a requirement to control mud on the highway.	
	No further comments or concerns were raised by East Riding of Yorkshire Council.	
10.	Agreement Log  LT stated that an agreement log was issued after the last ETG meeting. LT asked if there were any comments on the Agreement Log.	
	No comments or concerns were raised by East Riding of Yorkshire Council.	
	ST provided an overview of the current Agreement Log, noting that:	
	<ul> <li>Six meeting have taken place.</li> <li>Agreement Logs have captured the details and what has been agreed.</li> <li>LT stated the Agreement Log will be submitted with the DCO.</li> </ul>	
	ST did not think there were any additional agreements or non-agreements to add following this ETG meeting.	
	LT stated it would be good to get the further agreements in the next 4-6 weeks to make sure they can be submitted alongside the assessment.	
	ST asked whether there are any comments or feedback on the Agreement Log	
	No comments or concerns were raised by East Riding of Yorkshire Council.	
11.	Protective provisions  ST solved if Fact Diding of Verkebirs Council consider that they will require	ST
	ST asked if East Riding of Yorkshire Council consider that they will require Protective Provisions within the DCO. ST stated noted that none appear to have been included for the Hornsea Four Project.	
	AF advised East Riding of Yorkshire did not require Protective Provisions.	
12.	Next steps and ongoing engagement     The Projects will take onboard any additional comments.	ST



	Discussion of next steps - how we continue to engage.  LT asked the ETG that if there were comments and feedback to the draft OCTMP and ES Chapter then could they be provided within the following two weeks.  East Riding of Yorkshire Council agreed to provide any further comments within the timeframe.	
13.	LT asked about the proposed Household Waste Recycling Centre, noting that a Cumulative assessment has been completed before it was refused planning. LT asked if it should be left in the assessment?  AF advised he has no issue with it being included and said it could provide some further context.	LT
Action ID	Action	Owner
1.	ST to review commitments to HGV routing along links 4 and 5 within the OCTMP.	ST
2.	ST review options to notifying residents of road closures within the OCTMP.	ST



	DBS Draft Auks Compensation Meeting ETG					
Document Number: 005127450-01						
М	Meeting with: DBS Draft Auks Compensation ETG					
	Location:		Online – M	icrosoft Teams		
Start Time of Meeting: 2pm Date of Meeting: 29 <sup>th</sup> Fe			29 <sup>th</sup> February 2	024		
Attendees		Initials	Ro	ole & Organisation		
		DB	Offshore	e Consent Manager, RWE		
		AC	Offsho	ore Consent Lead, RWE		
		HP	Cor	nsent Manager, RWE		
		CC	Environm	nental Consultant, RHDHV	1	
		SB	Graduate Envi	ronmental Consultant, RI	HDHV	
		PP	Tech	nical Director, RHDHV		
		PM	Seni	or Consultant, RHDV		
		EJ	·	nsible Office, Natural Eng	land	
		PC		office, Natural England		
		RP Case Office, Natural England				
MT				MacArthur Green		
		IC	Ian Cain Environment			
		HA		nsation Application, CEA		
		RJ	Senior Ornithology, Natural England			
		MK	Principle Advisor, Natural England			
		AD		d of Case Work, RSPB		
		AM		nior Scientist, RSPB		
		ZT		encing Case Manager, MN	10	
	Apologies	Initials		ole & Organisation		
			None from the Wildlife	e Trust		
		• Pro	oject updates			
		• Lor	ng-list of measures for A	Auk species compensation	n	
Meeting Ag	genda/ Objective(s):	• Ne:	xt steps			
		• AO	·			
Item			ription/ Discussion		Presenter	
1	Project Design Upda  AC presented a summ		DBS projects.		AC	
	2	,	- 11		1.0	



#### Status:

PEIR consultation feedback received in July 2023 – fed into RIAA and Compensation documents.

 Plan Level discussion for the HRA – Secretary of state has approved the strategic predator eradication work.

AC summarised the current DBS programme, with DCO submission scheduled for late May 2024.

#### No Questions.

#### 2. **Preliminary Assessment Results**

terms of conclusions:

PP ran through the draft results, which had not been updated in line with comments from the ETG the week before. Draft assessment numbers are not final. In

- Guillemot: Hornsea is already looking at compensation for in-combination numbers little doubt on that conclusion.
- Razorbill: MT stated that he cannot add anything at this point to the in-combination numbers presented. Anything mentioned in this ETG will be considered.

PP stated that the presumption that AEOI accepted for guillemot but measures for razorbill will be on without prejudice basis – academic split between species.

# PP asked for any questions.

MK queried the razorbill threshold used, stated he asked because in Hornsea 4, the Examining Authority and the Secretary of State produced a threshold of a reduction in growth rate no greater than 0.5. He stated this was the basis on which Hornsea 4 decided if there would be adverse effects of guillemot and razorbill.

MT asked if this was a half % reduction in growth rate. MK confirmed.

MK wanted to raise this question because the razorbill reduction in growth rate value at the end of Hornsea 4 was 0.44, which does not sound like a great amount of head room.

 $\mbox{\rm MT}$  did not know that a threshold had been determined, was useful information to pass on.

PP responded by saying that the Outer Dowsing numbers will be out soon, and those numbers will influence the numbers MT has currently.

RJ understands that the 70% and 2% figures were accepted by the SoS for Hornsea 4 but pointed out that Natural England advised 70% and 5% for Hornsea 4 after having all the data and discussions. She stated that NE would not be able to commit to where in the range of these numbers they would recommend at this point.

PP acknowledged this.

PP



PP presented the long list of measures. He stated what was discussed last year, what was deemed not relevant and what is still being considered.

- Artificial colonies potentially relevant
- Prey management not relevant
- Designated of additional SPAs not relevant
- Reduction in bycatch being considered
- Predator management being considered

PP highlighted that predator management, reduction in bycatch and potentially artificial colonies are being considered at the moment.

#### The measures:

1) Predator Reduction

This has been agreed.

This measure was put forward by COWSC - PP stated that so far everyone has agreed that this is a feasible measure. He stated that the critical point is the feasibility of sites in England.

## 2) Reduction in bycatch

PP stated this is being considered as it will provide the widest range of measures to put forward.

PP then asked the ETG whether it is worth continuing with this measure given the eradication/predator control measure has been accepted? He asked if it could be an additional measure or an adaptive management measure.

MK responded by saying that as far as he is aware, Defra has confirmed three measures (designation/extension of MPAs, offshore ANS for kittiwake in English waters and predator reduction). He stated that everyone is waiting to see what will happen next, as its left to DESNZ and Defra.

MK stated that the long-term measures will be the ones delivered by the Marine Recovery Fund.

PP thanked MK for this insight and stated that it would be sensible to provide compensation strategically but understands that there is a list of sites which will be put forward in a plan, and hope that it will match with wider initiatives. PP overall thinks that they do not need to justify the selected measures, as they have been put forwards to the library of measures. PP stated that now discussions can be done on the practicalities of them.

AD stated his understanding but highlighted how this process can cause challenges for everyone. He stated he looked forward to hearing more throughout this ETG.

MK agreed that there is uncertainty in this process and stated that having more than one measure in the package sounded like good risk management. He agreed that with evidence emerging, other options can be considered (bycatch). PP stated there will be more discussions on bycatch later in the ETG.



	AD added that there is no evidence that looming-eye buoys work from what RSPB have seen and evaluated, regardless of Hornsea 4. He stated if things change and more comes forward, RSPB can investigate this but based on research (in Iceland) RSBP have been involved in points to them not working. PP asked that any literature available be shared. – it would be useful.  Action: AD provide Sheringham and Dudgeon quote (not published yet).	
3	Overarching Considerations for the Development of Auk Compensation	
<u> </u>	Measures	PP/IC
	PP explained that this is what RHDHV wanted to produce in terms of the eradication as a concept, and do not propose to put in a lot of information on that measure. There will be a focus on the actual sites and deliverability associated (practicality).	FF/IC
	PP recognised a strategic plan would be beneficial, but this is a challenge at the moment. He stated that a project-led, collaborative and strategic delivery will be applied to each measure. Outer Dowsing would be a good group to collaborate with – was raised but no current formal discussions on this.	
	MK stated that it would be good to make links with other RWE projects (with auk compensation consideration) and agreed that a collaborate approach would offer some great benefits (savings with staffing, and expertise with material etc).  PP agreed, but stated that for examination it will be presented at the project level.	
	AD had two points:	
	<ul> <li>Any predator eradication schemes would be required to be detailed in full before the close of examination; and</li> </ul>	
	<ul> <li>What was signed of in terms of predator eradication, and which species.</li> </ul>	
	MK stated there was a recognition that this measure needs a next step of which species would benefit, what locations might benefit the species etc. He mentioned that lots more conversations are to come from this, and that there are uncertainties with the Library being a UK Library. He stated that people recognise these issues and know there are more steps are needed.	
	PP pointed out that for the basis of the assessment, Scottish sites have not been included. Scottish sites did not fit into the assessment practically, and therefore, have been excluded from the list of projects.	
	MK questioned the ongoing advocacy on that point with Defra and DESNZ. He stated that if Scottish isles were available, it would de-risk the project quite a bit, so he understands putting out information to be put down in terms of project specifics, but stated the pressure is needed. He stated this is more for RWE than the RHDHV project team to think about.	



PP understood what MK said and stated that this decision can be highlighted in the report.

## <u>Predator Eradication/Reduction - Potential Sites (short list)</u>

PP stated that IC created this list and stated that islands and headlands have been included.

IC ran through the list. He stated how they have moved on from the RSPB priority list, and now focused on considering what challenging situations that might not have made the cut.

IC stated that the Northern Irish sites have been included, and also ones along the Welsh coastline. He stated that they are still waiting on a few key areas of information, including:

- More information on existing seabird activity
- Wildlife interest around the smaller area Middle Mouse, Middleholm, and Midland Isles etc. He said there is a presumption around rat activity
- More understanding on seabed activity

## IC asked if there were any specific questions.

AD asked for IC to double check which sites listed in the presentation are actually SPAs.

IC confirmed the list would be reviewed and amended as appropriate.

Post-meeting note – Updates regarding SPA status were made within the long-list of sites circulated with stakeholders 14/03/24.

RJ asked what the reasoning behind the list would be, and asked if it will be mentioned within the documentation.

PP stated that not all material has been shared, but this reasoning would be included in the report.

IC ran through the criteria and stated that the initial criteria was to look at the island opportunities given the challenged around headlands. He continued to list what has been included as part of the consideration (please see the slides for the list of criteria).

RJ asked about whether topography and the location of nesting has been considered.

IC stated that in terms of specific island information, not yet. There is still ongoing research being done. This will all be apart of the feasibility study.

MK stated that Hornsea 4 should be considered.

IC stated he is up to speed with Hornsea 4 and their feasibility study and stated that at the moment Hornsea 4 will be considered.

PP confirmed that the ETG will be provided with the categorisation of the list, and statement on how RHDHV finalised the shorter list.

Northern Ireland example: Sheep Island



IC confirmed that the guillemot and razorbill populations are looking healthy but claimed that the feasibility study would need to be done in terms of suitable nesting - has not been completed.

IC stated that this area has been subject to rat activity and has been investigated with regard to implementation of a biosecurity plan by the Environmental Agency and RSBP Ireland. He stated that this could be an opportunity to support this habitat in the success for the Auks.

AD highlighted that he knew this was an SPA for cormorants but was not aware it was one for quillemots and razorbills.

AD claimed that he does not know enough about whether the SSSI extends to cover other seabirds from the cormorants, stating that the RSBP cannot provide any comments on that right now.

RJ asked if IC has spoken to people on site and other managing organisations if they have any concerns.

IC confirmed that this has not been undertaken at this stage.

PP stated that at this stage RHDHV are looking to develop a short list with a justification, not a full plan yet, but a work in progress. He understood that there is still a lot that needs to be done but wants to reassure the ETG that this is being investigated.

MK highlighted that a critical question: Do Auks and rats interact in these places. He stated that the Project will need breeding seasons studies to help with elements of the justification. He stated that an understanding of what habitat would be useful.

IC understood what MK was advising but stated that the feasibility process will align with the tool kit (understanding abundance and have a robust DNS profile of current rat population or potential predators). He claimed that this will really help RHDHV understand what that feasibility will be against the several criteria. He stated that RHDHV really need to understand what the habitat looks like using a parallel process to the feasibility study.

AD asked if the timing of this work mentioned by IC would be post examination. PP confirmed this.

AD stated that RSPB would require all the information provided to allow for comments and provide an evaluation. PP responded by saying this would be fine. PP stated that there needs to be a recognition from stakeholders that it is not feasible to provide all the information at the point of examination and stated that not all the work can physically be done by then.

AD understood this but stated that RSBP will have difficulty in providing information and commenting on whether this would be feasible and produce any benefits.

RJ commented on the short list being rather short. She further added that she does not sees some of them being feasible. PP clarified that the list is longer, and that the ones presented on the slide were just a few that were being investigated at the moment.



MK wanted to make RWE aware that they might be in a worse situation for the predator work compared to other projects, such a Hornsea 4 due to preliminary assessments. He stated that this may attract unfavourable comments, and not a lot of information on them to back them up.

He stated Natural England would see this this as probably one of the least developed compensatory packages they have seen at submission. He appreciated that there is a number of imperatives but stated that the Projects need to be aware of this. PP understood this risk management comment.

#### **PP asked for any more comments.** None raised.

PP wanted to discuss the additionality point, and how the latest Defra consultation on MPS management around conservation is useful. He claimed that it discusses what normal management is and opens the door with beneficial interventions with SPAs themselves. PP stated this is why SPAs are not excluded from this list.

AD stated that RPSB might have a different view to Defra and argued that this consultation is not finalised should not be relied upon and advises against quoting it.

MK highlighted that the key is to understand how the site is being managed, what are the management plans, and then understand how to raise that substantially so there is no ambiguity. He stated this is the key step, understanding what 'normal' site management is – but Natural England recognise that this is a challenge as site management is complicated.

RJ agreed with MK and stated that it should be apart of your feasibility to investigate these sites and welcome SPAs.

#### **Practical Considerations**

# Timelines:

IC stated that there clearly needs to be a timeline attached to these feasibility assessments, following best practice, and then the phasing of work etc (Year 1).

If all planning steps go well, the eradication work is carried out (Years 2-3) with a contingency year. This could lead to islands and headlands being determined as predator free.

#### Demonstrating success

- Intensive monitoring phase around predators done in parallel in monitoring the seabird's response.
- Ongoing monitoring/biosecurity particularly for those locations closer to mainland and headlands.

## EJ asked two questions:

- 1) Stated that it would be helpful that at application all this information (on the plan) is provided.
- 2) NE would not support the success of the measure just being successful eradication and absence of predators. She highlights the measure should focus on the conservation of the auks. She stated that they would want to look at the success criteria that would demonstrate additional guillemots being produced.



PP stated that a plan will be provided, which will explain the rationale.

MK stated that we must calculate the benefits to the National Site Network. He stated that this could be difficult for kittiwakes, but it could apply to the auks. He asked if there has been anything done to portray those benefits, which could arise above high water. He continued to say that these sites could be considered to eventually form part of the network, or where the fates of the birds might be.

PP stated that this will be apart of our site justification, and that the latest guidance gives us an idea of how to inform our choices.

MK added that there might be a policy element.

RJ mentioned that there might be a requirement to detail how eradication programmes would be continued after the lifetime of the Projects. She asked whether a biosecurity measure will be put in.

PP agreed, and stated it will be considered, but is not sure how this will take place yet. He suggests that it could fall into the responsibility of the MRF.

No definitive answer yet, but it will be further discussed and raised.

ZT wanted to know if this will be a condition on the marine licence (compensation and monitoring). She wanted to know the timeline for the marine licence.

PP stated it should have been considered in previous projects, but it will be a condition to the marince licence(s) which will be available in draft for the MMO to review shortly.

AD stated that for Hornsea 3, the end point of their compensation was beyond the lifetime of the development.

He stated that the impact of collision or displacement will be felt by the relevant seabird population beyond the lifetime of development.

#### **Bycatch Reduction: PM (speaker)**

PM stated that there will not be a detailed discussion on this given the Natural England and RSPB positions will be similar to those for Hornsea 4 and SEP and DEP.

PM mentioned the Defra Fisheries and Industry's Science Partnership (Fishtek Marine), which has had buy-in from Natural England and RSPB in terms of the methodology. He stated that this scheme involves more electronic control of the vessels to help record every by-catch event.

PM stated that this Fishtek study will end in Autumn 2024 and will be written up in a PEIR review journal.

PM ran through the last three bullets of the criteria that will feed into the compensation plan:

- Timescales effective immediately
- Ratio one to one (excluding juveniles).

PM



		1
	<ul> <li>Monitoring – required until the success of the measures have been demonstrated, but also through the potential lifetime of the Project.</li> </ul>	
	AD stated from a RSPB perspective they would take the same approach.	
	PM clarified that the proposal would encompass the other types of deterrents, not just the looming-eye buoys, but appreciated that the study is recent and so the concerns will be considered.	
	Adaptive Management:	
	PP explained that the bycatch will be a secondary and adaptive strategy and asked whether is worth including artificial nests as a feasibly adaptive management.	
	RJ stated there is not a lot of evidence on it, but in theory it could work.	
	MK stated that Hornsea 4 consent included it as an adaptive management.	
	Strategic Compensation:	
	PP stated that the points on the slide were covered earlier in the recent ETG. PP stated that previous DCOs referred to the MRF and highlights that it would be good to keep the optionality open.	
	MK stated that the feedback to Hornsea 4 and Sheringham, was that the Secretary of State may need to be approached.	
4.	Next steps/AOB	PP
	Circulate a list of sites.	
	Get stakeholder feedback.	
	<ul> <li>Consider the feedback and prepare for second ETG (End of March or Early April).</li> </ul>	
	<ul> <li>Finalise proposals for DCO submissions.</li> </ul>	
	MK stated that getting dates as soon as possible for the ETG would be good, and asked if the long list could be shared.	
	ACTION – RHDHV to share long-list of predator eradication sites with ETG.	
Action ID	Action	Owner
1.	Provide Sheringham and Dudgeon quote regarding the Iceland research (Iooming-eye buoys).	AD
2.	Set up next ETG placeholder and provide the long to the stakeholders prior to the meeting.	PP
3.	RHDHV to share long-list of predator eradication sites with ETG.	RHDHV

**Appended Documents** 



	Traffic and Transport ETG					
	<b>Document Number:</b> 005122273-01					
M	Meeting with: Traffic and Transport ETG					
	<b>Location:</b> Online - Microsoft Teams					
Start	Start Time of Meeting: 10:00 Date of Meeting: 7 <sup>th</sup> March 202		24			
Attendees		Initials	Role & Organisation			
		ST	Transport Planner I RHDHV			
		LT	Onshore Consent Manager I RWE			
		СВ	Graduate Transport Planner I RHDH	V		
		OC	EIA Project Manager I RHDHV			
		RG	National Highways			
		JF	Consultant I Jacobs (on behalf of National H	lighways)		
		RE	Consultant I Jacobs (on behalf of National H	lighways)		
		PR	Highways Manager (Policy and Strategy) I Hull	City Council		
		SM	Town Planner (Major Projects) I Hull City C	Council		
	Apologies	Initials	Role & Organisation			
	N/A					
Meeting A	Meeting Agenda/ Objective(s):		<ul> <li>Project Update</li> <li>Review of assessment findings</li> <li>Review of CTMP (Construction Traffic Managellan).</li> <li>Review of agreement/disagreements</li> <li>Protective Provisions</li> <li>Next steps, ongoing engagement</li> <li>Any other business</li> </ul>	gement		
Item		Desc	ription/ Discussion	Presenter		
1	Project Design Update: Refinement of the Onshore Development Area  LT presented an update of the Project Design.  PR queried the proximity of the Onshore Converter Station Zone and the Jock's Lodge Improvement Scheme (JLIS). LT clarified that co-ordination is ongoing with the JLIS team and the substation location is designed around the JLIS design.  RG asked whether the project physically overlaps with the Strategic Road Network (SRN). ST confirmed there is no physical overlap and the only impact on the SRN will be from the Projects' traffic assigning towards the SRN.			LT		



2.	Review of Transport Assessment findings	ST
	ST outlined a summary of the approach to the assessment of traffic within the TA	
	ST described the construction scenarios that have been assessed in the ES (In Isolation and Concurrently) and why a Sequential Scenario was not assessed.	
	ST noted that no assessment of operational impacts was carried out, as previously agreed with Hull City Council and National Highways and no assessment of onshore effects from offshore construction and operation has been carried out as this will be managed by a Requirement to produce a Port Traffic Management Plan.	
	ST asked if the ETG have any comments upon these matters.	
	No comments or concerns were raised by Hull City Council or National Highways.	
3.	Review of Traffic and Transport Environmental Statement (ES) chapter findings (Amenity)	ST
	ST presented the findings of the amenity assessment from the draft ES. ST then described the proposed mitigation measures and how these would be secured through the Outline Construction Traffic Management Plan (OCTMP).	
	ST asked for any feedback or comments upon the amenity assessment/mitigation proposals.	
	PR asked for clarification on the Projects' working hours during the construction phase. ST confirmed these will be 07:00 to 19:00 and would be controlled via DCO requirement.	
	PR asked whether there will be a control on traffic movements during the network peak hours. ST confirmed that this is not proposed for amenity and HGV movements would be distributed throughout the day.	
4.	Review of Transport Environmental Statement (ES) chapter findings (Driver Delay - Capacity)	ST
	ST noted that the assessment of capacity has been deferred (as agreed with Hull City Council and National Highways) to post-consent as part of the OCTMP. At this stage no controls on peak hour movements are proposed.	
	SM asked whether Hull City Council (in addition to East Riding of Yorkshire Council) can be included in the working hours Requirement if there are proposed changes. <b>Action 1:</b> LT to review.	
	RE and JF noted that timings and mitigation for capacity effects can be determined post-consent once traffic numbers and known. PR noted that the methodology for determining measures and mitigation should be included in the OCTMP. ST confirmed that it is included in the OCTMP.	
5.	Review of Transport ES chapter findings (Road Safety)	ST
	ST presented the findings of the road safety assessment from the draft ES. ST then described the proposed mitigation measures and how these would be secured through the OCTMP.	
	ST asked for any feedback or comments upon the road safety assessment/mitigation proposals.	
	PR noted that the timing of improvements on Link 18 are still in progress and not known at this time. PR confirmed that it is better for traffic to be routed from the	



	ports of Hull to the A165 via Link 76 and 17 rather than via Link 18. PR confirmed that Link 76 would be appropriate for HGVs.	
	ST confirmed that the OCTMP outlines measures to secure this routeing (via Link 76 and avoiding Link 18).	
6.	Review of Transport ES chapter findings (Abnormal Loads)	ST
	ST presented the Abnormal Load review in the draft ES.	
	ST indicated that the transformers for the converter stations will come from the Port of Hull via a previously approved route (for Dogger Bank A).	
	ST advised that National Highways and East Riding of Yorkshire Council's	
	abnormal loads teams have also provided agreement in principle to the proposed route. ST advised that the transformer abnormal loads would not traverse Hull City Council's road network.	
	ST noted that a copy of the abnormal load study will be provided as an appendix of the ES traffic and transport chapter within the DCO application.	
	ST noted that as previously agreed with Hull City Council and National Highways, the routes and timing of non-special order abnormal loads movements would be agreed post-consent through the development of the OCTMP and that this commitment is secured within the OCTMP.	
	ST asked for any feedback or comments on the abnormal load review.	
	RE confirmed that it would be appropriate to revisit the measures once routes are known.	
7.	Review of OCTMP	ST
	ST provided an outline / page turn of the OCTMP covering the main areas and how the OCTMP would be developed post-consent.	
	SM noted that the wording in paragraph 8 could be ambiguous with the position of "as appropriate" in terms of consultation with highway authorities. ST indicated that this will be reviewed with the RWE legal team. <b>Action 2.</b> Wording of OCTMP (para 9) to be reviewed.	
	PR asked whether there was more detail on monitoring reports and timescales for the liaison. ST identified where this detail is contained in the OCTMP.	
	JF noted whether LV trips could also be booked in a similar way to the HGV booking system. ST confirmed LV trips will be controlled via other means, for example capacity assessments during the post-consent phase.	
	JF asked whether the Projects have provided the employee distribution data. ST confirmed this is within the Transport Assessment and uses socio economics data and journey-to-work data. ST confirmed that a copy of the TA with this data was provided with the PEIR and will also be provided with the DCO application.	
	RE noted that if the capacity assessments conclude that mitigation is needed that the OCTMP would need to be updated to include this mitigation.	
	ST confirmed that the OCTMP will be updated to identify that there may be a requirement to control employee trips during sensitive hours (subject to future capacity assessment). <b>Action 3.</b> OCTMP wording in relation to controls on employee trips during sensitive hours to be updated.	
	RE noted that the network peak hours to be avoided in the OCTMP also include the peak hours on National Highways' network. ST noted that these related to the East Riding of Yorkshire Council area as these assessments have been completed.	



8.	Agreement Log	
<u></u>	LT outlined that an Agreement Log was issued after the last ETG meeting and asked if there were any comments on it.	
	No comments were raised by Hull City Council or National Highways on the responses provided in the Agreement Log.	
	RE indicated that the future Statement of Common Ground should capture the detail from the Agreement Log. All agreed.	
	RE indicated that National Highways are content that matters can be controlled through the CTMP and that the Statement of Common Ground should only need one short statement to clarify this position.	
	LT clarified that the Statement of Common Ground with Hull City Council would also include other topics for Hull City Council.	
9.	Protective Provisions	ST
	ST asked if Hull City Council and National Highways consider that they will require Protective Provisions within the DCO. ST noted that none were included for the Hornsea Four Project.	
	BG advised that National Highways did not require Protective Provisions.	
	PR confirmed that Hull City Council did not need Protective Provisions and any transport-related issues would be controlled by the OCTMP.	
10.	Next steps and ongoing engagement	ST
	<ul> <li>The Projects will take on board any additional stakeholder comments.</li> <li>Changes will be incorporated (where possible) into the assessment and application documents.</li> <li>DCO submission is planned for May 2024.</li> <li>Examination is likely to start in 2024.</li> </ul>	
	Discussion of next steps - how we continue to engage.	
	LT asked the ETG that if there were comments and feedback to the draft OCTMP and ES Chapter then could they be provided within the following two weeks (21st March). All members of the ETG agreed with this timetable.	
	ST suggested that before comments are submitted during the examination period that it could be useful to have a meeting with the relevant authorities to discuss the comments and potentially clarify any matters. SM agreed that this would be beneficial to the process.	
11.	AOB	LT
	SM asked whether the draft DCO could be shared with Hull City Council so that they could review the wording. <b>Action 4.</b> LT agreed to share the draft DCO with Hull City Council so they could review the wording.	
Action ID	Action	Owner
1.	Review Requirement wording in relation to working hours.	LT
	Review wording in relation to the OCTMP.	LT
2.	Neview wording in relation to the Gentini.	
3.	OCTMP to be updated to include provision to potentially manage employee vehicle trips during sensitive hours,	ST



	Onshore Noise and Air Quality ETG					
		Document N	umber: 005131488-01			
	Meeting with: Onshore Noise and Air Quality ETG					
	Location:	Online – Microsoft Teams				
St	art Time of Meeting:	2pm	Date of Meeting:	14 <sup>th</sup> M	arch 2023	
	Attendees Initials Role & Organisation					
		LT	Onshore Consen	ts Manager	RWE	
		SaM	Air Quality Lead consulto	ant   Royal Ha	skoningDHV	
		JB	Onshore Support   R	Royal Haskon	ingDHV	
		SV	Noise Lead consul	ltant   SV Acc	ustics	
		ML	EIA (Noise) consul	tant   SV Aco	ustics	
		DW	Air Quality Office	r   Hull City Co	ouncil	
		SiM	Principal Town Plan	ner   Hull City	Council	
		JS	Principal Officer (Environme Yorkshir	ental Control) e Council	East Riding of	
		JT	Principal Officer (Environme Yorkshir	ental Control) e Council	East Riding of	
		AG	Principal Officer (Environme	ntal Health)	Hull City Council	
		RD	Environmental Regulation	ns Team   Hu	II City Council	
Meetir	<ul> <li>Welcome and Introductions</li> <li>Project Update</li> <li>Air quality: Review of the ES Assessment</li> <li>Air Quality: Agreement and Disagreement Log Re</li> <li>Noise &amp; Vibration: Review of the ES Assessment</li> <li>Noise &amp; Vibration: Agreement and Disagreement Review</li> <li>Net Steps and Ongoing Engagement</li> <li>AOB</li> </ul>				nt Log Review ssment	
Item		Description	n/ Discussion		Presenter	
1	Welcome and Introductions			LT		
	LT summarised the agend troduce themselves.	a, welcomed	attendees, and invited each of	them to in-		
2	Project Update				LT	
	structure and highlighted of the last ETG in December 2	only one mino 2023.	v of the project. Recapped onsh r change to the onshore cable	route since		
	LT summarised progress on the EIA since last ETG meeting and that the DCO submission remains targeted for May 2024.					



	LT recapped the in-solation, concurrent, and sequential scenarios, and project	
	durations.	
	LT provided an overview of the status of the DCO and the proposed construction and operation dates.	
2	Air Quality: Review of the ES Assessment	SaM
	Assessment Methodology	
	SaM provided an update on the ES chapter and described the onshore study area and the receptors considered within this and surrounding areas. SaM highlighted that concentrations are well below the air quality limits for the study area. NOx (nitrogen oxides) and Nitrogen deposition concentrations are well below critical levels and loads at most ecological sites. Background concentrations of ammonia are below the upper critical level. The baseline data is robust within the study area.	
	Potential Effects During Construction - Construction Dust and Fine Particulate  Matter Assessment	
	Overall the site is categorised as Medium risk. IAQM 2024 v2.2 suggested measures have been considered. No likely significant effects are predicted to arise from construction.	
	<u>Potential Effects During Construction – NRMM Emissions at Landfall and the Cable Corridor</u>	
	A qualitative assessment was undertaken, and it was determined that the impact from the NRMM emissions at landfall, the Onshore Converter Stations and the onshore export cable corridor would have no significant effects on human and ecological receptors.	
	SaM informed the ETG that construction mitigation measures will be set out in the Outline Code of Construction Practice (OCoCP).	
	<u>Potential Effects During Construction - NRMM Emissions at the Onshore Converter Stations</u>	
	It was assessed that there are unlikely to be significant impacts on local air quality, particularly with the implementation of control and mitigation measures that will be delivered through the OCoCP.	
	Potential Effects During Construction - Impacts from Construction Traffic Vehicle Emissions	
	Changes in concentrations of vehicle emissions were predicted to be marginal to all receptors for all scenarios. There is likely to be a negligible impact.	
	Construction-generated road traffic will not have a significant effect on human receptors.	
	No significant effects on ecological receptors and sites around the affected road network are predicted as reported on in ES Chapter 18 Terrestrial Ecology.	
	<u>Cumulative Effects Assessment</u>	
	No significant cumulative effects are predicted from the assessment. LT agreed to share the list of schemes with the stakeholders. SaM welcomed any feedback from stakeholders on the Cumulative Effects Assessment and the schemes assessed.	
	SaM asked the ETG if there were other schemes that ERYC or HCC are aware of that should be included in the CEA? No other schemes were suggested from stakeholders.	



	SaM reported no significant cumulative effects associated with traffic emissions at human or ecological receptors.	
	Onshore Air Quality Summary	
	SaM summarised there are no significant effects or cumulative effects.	
	Next steps were outlined as submitting the chapter in May 2024 as part of the	
	DCO. No questions or comments were raised by stakeholders.	
3	Air Quality Agreement Log Review	LT
	LT summarised the purpose of the Agreement Logs and the intention to submit a summary of agreements alongside the DCO submission. The layout of the Agreement Logs was summarised.	
	No comments or concerns were raised by stakeholders on the Air Quality Agreement log.	
	LT asked if there is AOB on Air Quality. No comments were raised from stakeholders.	
4	Noise: Review of the ES Assessment	SV
	SV invited comments from stakeholders after each presentation slide.	
	Construction Noise and Vibration	
	Three receptors (R3, R43, and R66) would potentially indicate a noise effect at night without additional mitigation based on worst-case assumptions. With mitigation in place, no significant noise effects are anticipated.	
	SV asked for comment on the above from JS. JS queried whether Horizontal Directional Drilling (HDD) is a 24-hour process. SV confirmed that it is a continuous process and therefore involves night work and reiterated that continuous HDD operation at night represents a worst-case scenario and that other methods could be applied where appropriate. SV highlighted that no vibration effects from HDD works have been identified due to the distance of receptors from the activity. JS accepted this conclusion.	
	SV asked whether the ETG agreed that the proposed mitigation measures are suitable. No comments or concerns were raised by stakeholders.	
	Construction road traffic	
	SV agreed to send a separate note covering noise levels above 5 dB at Eske Lane during peak periods. No significant construction effects are predicted. JS agreed the method of assessment sounded reasonable but would review it in full in the ES chapter.	
	Baseline Noise Monitoring	
	No change in monitoring results was reported. No comments or concerns were raised by stakeholders.	
	Operational Noise and Vibration	
	No receptors in the Hull City area were reported to be affected as the key noise source is from the Onshore Converter Stations. The assessment used previously discussed criteria for operational Onshore Converter Stations noise. Using those criteria, the noise levels presented no significant effects. JS agreed with this approach as per the previous ETG. JS agreed to review the Noise and Vibration ES Chapter and provide any additional comments.	
	Cumulative Effects Assessment	



Action ID	Action Action	Owner
	agreed. LT informed the ETG that the agreement logs will form the basis of the Statements of Common Ground between East Riding of Yorkshire Council and Hull City Council. No final comments or concerns were raised by stakeholders.	
	2024 DCO submission.  LT asked the ETG whether the next steps are reasonable for the ETG. The ETG	
6	Next Steps and Ongoing Engagement  LT summarised next steps and ongoing engagement and highlighted the May	LT
	LT summarised the Agreement Log and welcomed any comments. LT let the ETG know this, and the Air Quality Agreement Log will be issued with the ETG meeting minutes. SiM confirmed he was happy with this.	
5	Noise Agreement Log	LT
	SiM queried the avoidance of Holderness Road due to road safety issues. LT suggested a discussion on this if needed and that she would speak with the transport consultant on junction modelling post-DCO consent. SiM agreed with this approach.	
	SiM queried if there have been any updates since the traffic and transport meeting regarding a stretch of the road network identified in Hull with noise and vibration sensitive receptors. SaM confirmed all data that the traffic team has provided has been considered. The AQMA link within Hull had been studied, receptors around it considered and no exceedances had been identified.	
	SaM confirmed with RD that David White's agreement had been gained through email correspondence. Comments have been made through ETGs.	
	RD queried whether the Air Quality Chapter had been issued and commented on by stakeholders. LT confirmed the chapter had not been issued yet and that it should be ready to issue in draft in approximately one week. Findings had been summarised within ETGs rather than finalising the chapter for comment. RD was satisfied that his colleagues did not find any issues with what had been scoped into the assessment or the methodology.	
	SV opened the discussion for comments from stakeholders. JS asked for clarification on the timescale for ERYC to make comments on the ES chapter given that the submission for the DCO is in May 2024. LT added that DCO deliverables are in final stages but still editing, but comments received within 2 weeks would be appreciated. JS accepted this.	
	SV invited JS to review the list of cumulative schemes and advise whether any that have not been identified may be relevant to the cumulative assessment. LT added that James Chatfield, Principal Case Officer, is happy with the cumulative schemes long list. LT agreed to send the cumulative long list to SM.	
	Daytime construction noise levels are predicted to be non-significant, and the only time that the effect level is almost reached is where there are possible night works. No cumulative traffic noise effects are anticipated. No significant cumulative operational effects are anticipated from other schemes due to the distance of the Projects from them. SV was confident there are no cumulative noise issues based on the available information.	



1	LT to share the long list of schemes assessed in the Cumulative Effects Assessment with stakeholders	LT
2	SV to send a separate note to stakeholders covering noise levels above 5dB at Eske Lane during peak periods.	SV
3	JS to review the Noise and Vibration ES Chapter and provide any additional comments within 2 weeks.	JS



		Onshore	PRoW and Access ETG		
		<b>Document</b>	Number: 005131491-0	01	
M	leeting with:		Onshore PRoV	V and Access ETG	
	Location:	Online - Microsoft Teams			
Start	Time of Meeting:	10am	Date of Meeting:	14 <sup>th</sup> March 20	24
	Attendees	Initials	Ro	le & Organisation	
		RT	Onshore Cons	sents Lead   RWE Renewa	bles
		JB	Onshore Support   RWE Renewables		
		KD	Land Use ES (	Chapter Consultant   RHD	OHV
		AC	Rights of Way Office	er   East Riding of Yorkshi	re Council
		DS	Definitive Map Offic	er   East Riding of Yorkshi	re Council
		IR		East Riding of Yorkshire cal Access Forum	area   Joint
		АН		East Riding of Yorkshire cal Access Forum	area   Joint
	Apologies Initials Role & Organisation				
		OC	EIA Pro	ject Manager   RHDHV	
		ED		nd National Trail Coastal F ing of Yorkshire Council	Path Officer
Meeting A	genda/ Objective(s):	<ul><li>Project</li><li>Enviro</li><li>Summ</li><li>Agreet</li></ul>	me and Introductions It Update Inmental Statement up Itary of Outline PRoW M Iment Log Isteps and Ongoing Eng	Management Plan	
Item		Desci	ription/ Discussion		Presenter
1	attendees.	endees, prov	ided apologies, and invit		RT
	IR stated that the JLAF are pleased with the revised Outline Public Rights of Way Management Plan (the 'OPRoW Management Plan' hereafter) and had just a few issues to raise today.			IR	
2	Project Update				RT



	RT highlighted that a minor amendment to onshore export cable corridor caused tweaks to the OPRoW Management Plan [draft PRoW Management Plan issued in advance of ETG], otherwise there no changes since the last ETG.  Cable corridor	
	IR questioned whether gaps in soil storage will allow for PRoW access.	
	RT confirmed any PRoW crossing the temporary construction area would be fenced to allow access across the site.	
	Onshore converter station site	
	IR queried the pink hashed area on slide 10. RT explained this represents the onward cable routing 100 m wide corridor.	
	AC noted there is an overlap between the onward cable routing area and the proposed development for Jock's lodge. RT confirmed that this is correct.	
	IR queried whether the onshore export cable corridor is being used by both Projects (DBS East and DBS West). RT confirmed the 75 m corridor is to allow for cables for two Projects, if only one project was developed this area would reduce to 41 m.	
	Progress since last ETG	
	IR asked if the Projects' have considered aesthetics and for some detail on tree height. RT confirmed that the design provides screening for receptors to the north and south of the Substation Zone, where the Onshore Converter Stations are located and will include a native mix of planting, comments were received at the local liaison committee and tree species are being agreed with ERYC. It is assumed in the Landscape and Visual Impact Assessment (LVIA) that the trees will take 10 years to reach full height, based on the growth rate of the native species mix proposed.	
	IR queried if the change resulted in any new effects on PRoWs. RT confirmed that there are none.	
3	Environmental Statement update	KD
	KD gave an update on the Land Use chapter, confirmed mitigation measures are in place and that there are no significant residual effects in the EIA for PRoW.	
	Potential effects during operation	
	No permanent closures are required but Walkington Footpath No. 4 requires a permanent diversion.	
	RT stated the OPRoW Management Plan is the main vehicle for the delivery of mitigation measures and that RWE are happy for further comments from stakeholders on this.	
	No concerns or comments were raised by stakeholders.	
4	Summary of Outline PROW Management Plan	RT
	Outline ProW Management Plan - Updates	
	RT highlighted that this must gain agreement from ERYC as PRoW officers and stated that the measures in the plan are in outline to inform a more detailed plan so there is opportunity to discuss further at the detailed design stage.	
	AC noted that Simon Parker (ERYC) would deal with Walkington Footpath No.4 and will need to be involved with the legal team for associated Definitive Map changes.	



IR stated the JLAF is pleased with responses to their comments, but raised a concern over whether the whole of the route is affected over the six years.

RT confirmed that there was a commitment to reinstate between Jointing Bays within 2 years along the Onshore Export Cable Corridor and that this could be added to the OPRoW Management Plan.

RT confirmed more than one temporary crossing may be in place during that period

IR queried whether with suitable caveats, it might be worth writing that into the PRoW Management Plan.

RT confirmed it is in the Outline Code of Construction Practice but not in the OPRoW Management Plan currently. RT confirmed she would add a commitment to reinstate between jointing bays within two years.

RT gave an overview of the information added to the PRoW Management Plan.

RT asked the ETG whether they agree the indicative Walkington Footpath No.4 proposed 'permanent' diversion .

All stakeholders agreed.

RT explained that meeting 'Access-For-All' requirements on the diversion of Walkington Footpath No.4 had been resolved. RT asked if there is sufficient detail for stakeholders to be reassured on the slope detail. IR confirmed that there was and asked if there will be permanent signage.

RT confirmed this and will check the wording in the OPRoW Management Plan and make sure this is clear for the permanent diversion that signage would be put in place.AC had no concerns.

[Post Meeting note: these amendments will be made in the final PRoW Management Plan]

#### Hornsea access road

RT reassured the ETG that the DBS and Hornsea Four Projects are in discussion and that the project being constructed first will put in an adequate PRoW diversion. Discussions will be ongoing throughout the process.

IR highlighted the importance of consistent surfacing on equestrian routes.

RT confirmed that this is covered in the Outline PRoW Management Plan. A detailed plan will be agreed with the Hornsea Four project and ERYC.

<u>Jocks Lodge Junction Improvement Scheme and interaction with Rowley Bridleway No.13.</u>

RT explained construction has begun and is likely to be ongoing when DBS construction begins, and assured the ETG there will be agreement with Jocks Lodge made before DBS construction commences.

IR suggested the Projects could enhance Rowley Footpath No.13 along the proposed temporary construction access road which will connect to Jocks Lodge as a potential enhancement measure.

RT confirmed this was not currently considered but the bridleway would be reinstated to the requirements of its users and there would be a post-construction survey to confirm its reinstatement. However, this bridleway may not require reinstatement if it can be separated from the construction traffic. There was a commitment to keep it open following a brief period of stopping up (up to 3 months) to install any safety measures in the OPRoW Management Plan.



RT asked whether JLAF are reassured that DBS are working with Jock's Lodge sufficiently on this matter. IR agreed.

#### Reinstatement text

IR requested a change to the reinstatement wording to agree to up to 7 years of post-reinstatement monitoring/watching brief and commitment from the Offshore Transmission Owner to repair it. RT agreed to review the wording.

[Post Meeting note: these amendments will be made in the final PRoW Management Plan]

IR stated the OPRoW Management Plan was counter to the National Planning Policy Framework para 104 of the policy 'Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails', and requested how this was being addressing in the plan. RT stated no intention to enhance, as the works were temporary and once reinstated would all be below ground with no significant permanent diversions (except Walkington Footpath No.4), therefore no significant effects on PRoW users. RT explained the commitment to provide a community benefits package for the Projects in laison with ERYC, that delivers for local communities including skills and supply chain initiatives. This may include opportunity for communities to apply for funding for suitable projects, but the benefits package is at an early stage of development and would be separate to the DCO.

AH commented there is disruption for up to 6 years so some funding via a S.106 or equivalent should be required. RT agreed she would request JLAF to be included in the community benefits package consultation, if appropriate.

AH commented the community benefits package should be publicised well to promote good public relations. RT clarified that it had not been publicised yet, as the community benefit team want to launch it with the correct stakeholders involved.

IR asked if separate consent would be needed for the permanent diversion. DS agreed that this would be part of the DCO, when the DCO was granted the Definitive Maps team would consider the diversion. DS confirmed ERYC would be a consultee of the DCO at application and when agreeing the final plan with the contractor.

RT confirmed staff will be on site for maintenance roughly once a month. Minor management measures would be in place during construction. DS was happy with the Walkington Footpath No.4 diversion at this stage.

IR asked for the wording on consultation with parish councils to be amended to make sure they are consulted. RT agreed to check the OPRoW Management Plan wording and update it if required.

[Post Meeting note: these amendments will be made in the final PRoW Management Plan]

# Key temporary management measures

RT let the ETG know that the measures are similar to the last ETG in December. RT summarised notification elements and risk assessments, maintaining access and reinstatement

IR was impressed that signage is being included in paragraph 34 in the OPRoW Management Plan and suggested adding consulting the countryside management team or parish councils. RT agreed to review text on signage.



	IR queried whether connection to Birkhill wood substation was being undertaken.	
	RT confirmed that it will be in discussion with National Grid.	
5	Agreement Log RT summarised the Agreement Log and explained that they will be used to form the basis of the Statement of Common Ground. Proposed agreements were discussed in reference to the ID numbers of each. All were agreed subject to the below:	RT
	ID 1. IR commented they are generally happy but advised amending wording for 7-year period for reinstatement. RT agreed to consider this.	
	[Post Meeting note: these amendments will be made in the final PRoW Management Plan]	
	RT confirmed that a final draft of the OPRoW Management Plan will be circulated to stakeholders ahead of the May DCO submission, and that small changes can be made during consultation after submission.	
6	Next Steps and Ongoing Engagement RT confirmed the forward programme and requested any further comments on the OPRoW Management Plan by the 28 <sup>th</sup> March.	RT
7	AOB No other business or questions were raised.	RT
Action ID	Action	Owner
1	RT to add text into the OPRoW Management Plan on 2-year reinstatement between Jointing Bays [Post Meeting note: these amendments will be made in the final PRoW Management Plan]	RT
2	RT to amend the OPRoW Management Plan to make clear that signage will be in place for the permanent diversion.  [Post Meeting note: these amendments will be made in the final PRoW Management Plan]	RT
3	RT to review and update wording of reinstatement text [Post Meeting note: these amendments will be made in the final PRoW Management Plan]	RT
4	RT to request JLAF to be included in the community benefits package consultation if appropriate.	RT
5	RT to review text on signage in the OPRoW Management Plan regarding ERYC consultation with parish councils [Post Meeting note: these amendments will be made in the final PRoW Management Plan]	RT
6	RT to circulate final draft of the OPRoW Management Plan to stakeholders for comment prior to DCO submission  [Post Meeting note: final PRoW Management Plan going through final check, likely May 2024]	RT



		Lands	cape and Visual ETG		
		Document	Number: 005131492-	01	
N	Meeting with: Landscape and Visual ETG				
	<b>Location:</b> Online – Microsoft Teams				
Start	Time of Meeting:	Time of Meeting: 10am Date of Meeting: 15 <sup>th</sup> March 2024			24
	Attendees	Initials	Ro	ole & Organisation	
		AB	Onshore Con	sents Lead   RWE Renewa	bles
		RT	Onshore Consents Manager   RWE Renewables		
		KS	Senior Conser	its Manager   RWE Renew	ables
		JB	Onshore Su	pport   Royal HaskoningD	HV
		PM	Lead La	ndscape Architect   LUC	
		EH	Land	dscape Planner   LUC	
		SM	Town P	lanner   Hull City Council	
		JC	Planning Case Office	cer   East Riding of Yorkshi	re Council
	BB Landscape Consultant   2B Landscape Consultancy (Ed Riding of Yorkshire Council LVIA advisor)				
	Apologies	Initials	Ro	ole & Organisation	
OC			EIA Project M	EIA Project Manager   Royal HaskoningDHV	
Meeting A	Meeting Agenda/ Objective(s):		Welcome and Introduct Project Update LVIA Update Agreement Log Next Steps and Ongoir AOB		
Item		Desc	ription/ Discussion		Presenter
1	Welcome and Introductions  RT welcomed attendees and invited members of the ETG (Expert Topic Group) to introduce themselves.			RT	
2	Project Update				RT
	RT introduced and provided an overview of the project. Recapped onshore infrastructure and highlighted only one minor change to the onshore cable route since the last ETG. No offshore changes were reported.  RT highlighted the Sustainable Drainage System (SuDS) pond location and asked SM to comment later in the ETG. The lightning mast was shown as the tallet structure at 27m. SM confirmed his understanding of the project update.  RT outlined a small change to the onshore export cable corridor to avoid an area of ecological priority habitat.				
3	LVIA Progress PM				



#### Updates since last ETG

PM informed the ETG that construction stage effects of the onshore export cable route will be reported in the Landscape Visual Impact Assessment (LVIA) following legal review. There are unlikely to be any significant residual effects.

No significant effects were reported at PEIR stage and no disagreement in the S42 consultation responses.

#### Landfall and Cable Corridor

PM stated emerging findings from the ES are likely to find significant temporary effects at landfall. The area will be reinstated in line with the Outline Landscape Management Plan.

## Onshore Substation Zone

PM outlined there are significant effects arising from the Onshore Converter Stations as they form a substantial element of above ground infrastructure in the landscape. A Landscape Plan has been developed to provide mitigation for the Onshore Substation Zone.

Landscape planting is located further to the south of the Onshore Converter Stations, rather than directly adjacent, due to the presence of existing subsurface pipelines. Land between the Onshore Converter Stations and proposed landscape planting will be returned to agricultural use.

There is less available space for mitigation planting to the west, however this is where less sensitive receptors lie. Offsite mitigation is being considered.

BB's previous comments on the indicative drainage feature have been considered and the design around SuDS is indicative. Detailed design of the feature will be developed post-consent.

RT informed the ETG that an ETG with PRoW (Public Rights of Way) officers occurred yesterday (14/03/2024) in which they agreed they were happy with Walkington Footpath No.4 diversion.

PM invited questions from stakeholders. BB queried whether, with earth curvature, the offshore windfarm was visible from the shore. PM responded it would not be visible from sea level, but it could be visible from an elevated point such as Flamborough Head. PM agreed to revisit the scoping report for clarification. RT highlighted this is a good point to agree officially in the Agreement Log, which was revisited at the end of the ETG meeting.

JC asked what size trees are being planted for woodland screening. PM responded that trees will be installed as whips and cited this as the best way to establish woodland screening due to their fast growth. The Applicant is happy to commit to the woodland belt south of the Onshore Converter Stations being planted early during the construction phase. JC and BB agreed with the use of whip planting for landscape mitigation, and strongly supported the idea of planting as early as possible during construction phase.

PM confirmed that is the Projects' proposed approach and that there has been a year 1 assessment that assumes no mitigation from planting. An assessment at year 10 assumes woodland planting reaches 8-10m in height. The first 4 years will be construction phase so by year 1 of operation there will be some screening from establishing new woodland. BB confirmed this information addressed a point raised in his pre-ETG email querying growth rate assumptions, which he agreed with.



PM confirms visuals will be shown at year 1 and year 10 of operation, and assessment made of each. RT to share visuals with SM.

SM queried whether there is a substantial tree belt to the east of the proposed SuDS pond. PM confirmed there is screening, but it is not substantial. The presentation showed a worst-case scale for the SuDS feature based on the maximum space the engineers might need and PM stated there should be opportunities to include more screening within the site. SM suggested it is achievable to provide a more robust boundary in that area but was satisfied that what was being shown is the worst case.

BB raised a concern that there should be a commitment to revise the design post-consent and a communication of intent to do so. PM confirmed principles relating to SuDS design will be included within the in the Design and Access Statement (DAS). Drainage and landscape plans will be submitted to East Riding of Yorkshire Council (ERYC) for approval, the DAS principles will guide that design. It would be welcomed by the Projects that ERYC to include 2B Landscape Consultancy in this process. BB confirmed he is happy with this response and asked for JC to comment. JC responded that the more information ERYC can have on the SuDS design ahead of DCO submission the better, as it can be difficult for ERYC to influence such matters post-consent.

JC asked if anyone had visited the site recently as ERYC have been undertaking works in the area that have resulted in a significant loss of trees and hedgerows. The losses will be reinstated but if the Projects are relying on existing hedgerows around that the Jock's Lodge junction to the east of the site this could be an issue. BB offered to visit the site next week and take photographs. RT and PM thanked BB. [Post-meeting note: photos gratefully received]

#### **Local Liaison Committee Meetings**

AB gave an overview of where Local Liaison Committee meetings were held, the Parish Councils that attended, and what was discussed. No concerns were raised at the meetings. No comments or concerns were raised by stakeholders.

#### **Design and Access Statement**

PM provided an overview of the DAS and what will be included. JC's previously raised point was noted, and more information was included regarding design principles and approaches to secure best possible outcome.

PM set out the high-level design principles. BB raised his previous comment regarding a colour study to be taken on board. BB also raised his previous remarks regarding lighting to be addressed as PM had stated lighting would only be required during operational staff visits after sunlight hours (average once per week), as the site will not be permanently manned. PM noted there are commitments within Chapter 18 Terrestrial Ecology regarding minimising lighting for ecological mitigation purposes. RT confirmed there will be a lighting plan developed as per the requirement in the draft DCO Practice.

BB asked whether detail on lighting would be available in the DAS. RT responded that it is difficult for engineers to say more at this stage. RT confirmed there will be no continuous lighting and that works will generally be undertaken during daylight hours. RT agreed to extract further details from the engineers and PM to consider them.

[Post Meeting Note: Further detail on lighting is being added to the DAS to address this point]

Other Comments Received

AB

PM



		,
	RT gave an overview of the proposed building heights and asked the ETG for comments.	
	BB confirmed he is happy with the information on building heights. JC suggested the Humber Forest Planting Programme would be a good way to deliver extra planting. RT responded that this was helpful information and thanked JC.	
	BB queried whether language such as 'may be able to explore' in relation to post- consent offsite planting could be firmed up. RT confirmed she could take this away and potentially add additional wording into the Outline Landscape Management Plan.	
	[Post Meeting Note: Further detail to be added to the OLMP to address this point]	
	BB stated an appropriate level of consideration of colour would be acceptable from ERYC, accepting that it may be too late to look at the form of the Onshore Converter Station at this stage. JC agreed and raised that the Planning Inspectorate is likely to push for built form with a design sympathetic to the landscape.	
	RT ran through the viewpoints for the visual impact assessment with SM.	
	BB confirmed he was happy that everything has been addressed from his email except Viewpoint 3 which BB did not think showed the proposed road clearly enough. PM to review Viewpoint 3.	
4	Agreement Logs	RT
	RT gave an overview of the agreement logs and explained their purpose to ultimately feed into the Statement of Common Ground. It was noted that the Log will be sent out and comments will be returned by stakeholders.	
	ID 1: RT to add information regarding the earth's curvature and whether the offshore windfarm can be seen from the shore. BB and JC agreed in principle.	
	ID 2: BB agreed.	
	ID 3: BB agreed if construction impacts are explored.	
	ID 4: BB agreed.	
	ID 5: BB felt that the viewpoints are appropriate but will confirm once he has looked around the area. SM agreed he was happy with viewpoints and that methodology has not changed since PEIR. SM to comment formally after seeing the draft ES chapter.	
	ID 6: ETG agreed.	
	ID 7: No comments or concerns from stakeholders	
	ID 8: ETG broadly agreed but would like to see further commitments around the design of the SuDS pond and offsite mitigation.	
	ID 9: BB agreed.	
	ID 10: RT to add notes from this ETG meeting.	
5	AOB	RT
	JC commented it is probably best that ERYC do not attend Local Liaison Meetings. AB will let JC know when the next Local Liaison Meetings are, and JC can pass this on to the Economic Development Manager for ERYC.	
	SM asked whether Hull was covered in the scale strategy. AB responded that she believed so but will confirm.	
	BB noted the visualisations are nearly complete except Viewpoint 3, and the requested wire frames. RT will update text on the last ETG presentation slide.	



Action ID	Action	Owner
1	PM to clarify whether the offshore wind farm is visible from the shore and elevated viewpoints.	РМ
	[Post Meeting Note: response provided in agreement logs]	
2	RT to share draft visuals showing mitigation planting around the Onshore Converter Stations with SM.	RT
	[Post Meeting Note: Included in the ETG presentation circulated with the minutes]	
3	BB to visit the Jock's Lodge junction to the east of the site w/c 18 <sup>th</sup> March 2024 to take photographs of trees and hedgerows.	BB
	[Post Meeting Note: Action complete, photos received]	
4	RT to extract further details from the engineers regarding lighting specifics on the Onshore Converter Station.	RT
	[Post Meeting Note: Further detail on lighting is being added to the DAS to address this point]	
5	PM to consider spatial lighting details moving forward with guidance from RWE. [Post Meeting Note: Further detail on lighting is being added to the DAS to address this point]	PM
6	RT to look at firming up wording around offsite planting post-consent within the Outline Landscape Management Plan.	RT
	[Post Meeting Note: Additional wording being added to the OLMP]	
7	PM to review Viewpoint 3 and see if more information can be shown regarding the proposed road.	PM
8	AB to pass on to RWE) information regarding ERYC's attendance at Local Liaison Meetings and discuss with ERYC's Economic Development Manager.	AB



	Onshore Historic Environment ETG Meeting				
	C	ocument N	Number: 005131493	i-01	
М	Meeting with: Onshore Historic Environment ETG				
	<b>Location:</b> Online - Microsoft Teams				
Start <sup>-</sup>	Time of Meeting:	2pm	Date of Meeting:	19 <sup>th</sup> March 20	)24
	Attendees	Initials	Rol	e & Organisation	
		LT	Onshore Consen	ts Manager   RWE Ren	ewables
		OC	EIA Project Ma	nager   Royal Haskonin	gDHV
		JM	Heritage Technica	l Director   Royal Hasko	oningDHV
		MJ	Heritage Cons	ultant   Royal Haskonin	gDHV
		JB	Onshore Sup	port   Royal Haskoning	DHV
		SP	Opera	tions Manager   AOC	
		AH	Science A	dvisor   Historic Englan	d
		KE		nt Monuments   Histori	
		RN	Principal Archaed	blogist   Humber Archae Partnership	eological
		RB	Conservation Team	n Leader   East Riding o Council	f Yorkshire
Meeting	<ul> <li>Welcome and Introductions</li> <li>Project Update</li> <li>Environmental Statement Update</li> <li>Feedback on Environmental Statement and Outline Written Scheme of Investigation</li> <li>Agreement Log</li> <li>Summary and Next Steps</li> <li>AOB</li> </ul>			Outline	
Item		Descr	iption/ Discussion		Presenter
1.	Welcome and Intro OC welcomed the E troduce themselves	Expert Topic	c Group (ETG) and invi	ted members to in-	OC
2.		e and highli	n overview of the proje ghted only one minor		LT
	LT summarised pro	gress on th	ne EIA since last ETG meted for May 2024.	neeting and that the	
	and project duration	ns.	n, concurrent, and seq		
	LT provided an ove struction and opera		e status of the DCO ar	nd the proposed con-	



### 3. **Environmental Statement Update**

MJ

MJ invited stakeholders to comment throughout the presentation. Setting Issues at AA Battery at Butt Farm

MJ summarised feedback from the previous ETG in December 2023 regarding impacts associated non-designed below ground remains in the field and planting affecting the setting of the AA Battery. Discussions with the Landscape Visual Impact Assessment (LVIA) team were had in light of this.

LT highlighted that a Design and Access Statement (DAS) will be submitted alongside the Development Consent Order (DCO) and summarised some commitments that will be included in the DAS.

A Moderate adverse significant effect on setting for the AA Battery was reported, including views to the south and the loss of some archaeological interest. MJ welcomed comments from the ETG on this matter

KE considered how the onsite experience is affected by the presence of the Onshore Converter Station. MJ responded by asking if it would help to send the detailed Setting Assessment appendix for the ES. KE agreed that would be helpful.

RN stated that he believed the visualisations show a significant adverse impact despite mitigation.

RB agreed with KE on Settings assessment and RN on the major impact to the setting of the asset.

MJ confirmed it would be helpful to send the detailed Settings Assessment with stakeholders.

KE stated he would want to see additional benefits proposed to help mitigate the adverse impact.

#### Other Setting Issues

No predicted significant effects from the other 18 assets assessed.

KE asked whether views were taken from the first floor of Risby Hall during the Setting Assessment. MJ noted that viewpoints had been agreed with HE previously. JM noted that photomontage visualisations would not normally be produced for viewpoints within private buildings, but confirmed that those views would be considered in the settings assessment where relevant. KE accepted this.

#### Survey Updates

MJ summarised the geoarchaeological monitoring exercise results and updated the ETG on the ongoing geophysical surveys.

RN raised that the National Library of Scotland website new ESRI coverage shows SP's evaluation trenches, meaning they have been georeferenced onto the first edition ordnance survey coverage, and useful for some features including at East End Garths on the landfall site. SP agreed to review this.

MJ updated the ETG on the Trial Trenching Programme including the trial trenching areas and programme for 2024. MJ asked the ETG whether they are happy with the proposed approach to pre-examination fieldwork. RN agreed and no comments were raised by other stakeholders. MJ agreed to share the trench plans within the next week.



4.	Feedback on Environmental Statement and Outline Written Scheme of Investigation	MJ
	The Environmental Statement (ES) and Outline Written Scheme of Investigation (OWSI) were shared with the ETG attendees prior to the ETG.	
	AH commented that the OWSI the aims and objectives section of the OWSI could benefit from some extra text, could be formatted in a way that makes the aims and objectives easier to cross reference with the site-specific WSIs. It utilises the Yorkshire Research Framework and mentions other chronological research frameworks and agendas but does not utilise any, so they should be added. MJ agreed to consider this.	
	RN strongly disagreed with the Protocol for Archaeological Discoveries and highlighted that an agreement would not be made with him on the matter. RN suggested full presence watching briefs unless it can be shown that any archaeology within that zone has been destroyed or will not be impacted during soil stripping.  No comments were raised from stakeholders on the ES.	
	No comments were raised from stakeholders on the inclusion of a public outreach and community engagement framework for the Projects.	
5.	Agreement Log  LT summarised the agreement log and noted setting issues are still under discussion. LT informed the ETG that the Agreement Log will form the basis of the Statement of Common Ground.	MJ
6.	Next Steps	OC
	OC summarised next steps following the ETG and asked stakeholders for their feedback on the Agreement Log.	
7.	AOB	MJ
	RN raised that it should be considered how the ES evaluate archaeological potential. The ES should link clearly into research agendas and questions, and questions should not be posed that will not be addressed by the scheme, however questions that will certainly be raised by the scheme have not been addressed in the ES. RN repeated the earlier point made regarding research agendas. MJ accepted this feedback.  No further comments were raised by other stakeholders.	
Action ID	Action	Owner
1	SP to look at the ordnance survey coverage of evaluation trenches on the National Library of Scotland site in relation to East End Garths.	SP
2	MJ to share the trench plans with the ETG once they are available.	MJ
3	MJ to look at the OWSI aims and objectives and research frameworks, considering AH's feedback.	MJ
	*	



		Terr	estrial Ecology ETG		
		Document	Number: 005131489-0	1	
Me	eeting with:		Terrestrial Ecology E	Expert Topic Group	
	Location:		Online – Micro	osoft Teams	
Start T	ime of Meeting:	10am	Date of Meeting:	19 <sup>th</sup> March 20	24
A	Attendees	Initials	Role	& Organisation	
		AB	Onshore Conse	nts Lead   RWE Renewal	oles
		RT	Onshore Consent	s Manager   RWE Renew	rables
		JF	Lead Ecologi	ist   Royal HaskoningDH\	/
		TC	Principal Ecolo	gist   Royal HaskoningD	HV
		LA	Onshore Supp	ort   Royal HaskoningDF	HV
		LaS	Consultant E	Ecologist   ECUS Ecology	1
		JW		Department for Ecology at Riding of Yorkshire Co	
		CE	Planning Advis	sor   Yorkshire Wildlife Tru	ust
		LiS Senior Advisor, NSIPS   Natural England		nd	
Apologies Initials Role & Organisation					
AD Head of Site Conservation Policy   RSPI		РВ			
		NW	Net Gain Princip	oal Advisor   Natural Engl	land
<ul> <li>Welcome and Introductions</li> <li>Project Update</li> <li>Terrestrial Ecology Baseline Survey Results</li> <li>Environmental Statement Progress</li> <li>Cumulative Impact Assessment</li> <li>Biodiversity Net Gain</li> <li>Agreement Log</li> <li>Summary and Next Steps</li> <li>AOB</li> </ul>					
tem		Desc	cription/ Discussion		Presenter
1.	Welcome and Int OC welcomed the introduce themse	Expert Topic G	froup (ETG) and invited the	e attendees to	OC
2.	screening also pro Landscaping plar highlighted that t	ovides ecologica ns were shown c he Sustainable	within the Onshore Develop al benefits. on slide 10. RT summarised Drainage System (SuDS) p way than was indicated by	d the design and and will be designed in	RT



	covered in the Design and Access Statement (DAS) and a newsletter on this is coming out soon.	
	No questions or concerns were raised by stakeholders.	
	[Post Meeting Note: Spring 2024 Newsletter]	
3.	Terrestrial Ecology Baseline Survey Results	LG
	LG invited comments and questions from stakeholders throughout.	
	LG explained most of the baseline area is mostly productive agricultural land. Some priority habitat (lowland fen) was identified through surveys and has now been avoided. Of the 14.8 km of hedgerows, approximately 28% are 'important' hedgerows.	
	<u>Bats</u>	
	No rare bat species were recorded during surveys.	
	The key issue is the potential for roosting bats in trees. A pre-construction survey will be undertaken to confirm whether trees with roosting potential are still present and if other trees should be reconsidered for roosting bats.	
	LG proposed a 50 m buffer from the Onshore Development Area for bats and invited comments from stakeholders on this.	
	No questions or concerns were raised by stakeholders.	
	<u>Badgers</u>	
	No confirmed main setts but subsidiary, annex, and satellite setts are within the 30m Onshore Development Area buffer.	
	The Projects are likely to apply for a licence to close any affected setts. temporarily. The survey will be updated as part of pre-construction preparations.	
	NE advised in a pre-meeting email that a Letter of No Impediment (LoNI) will be applied for where the Applicants assess that one might be required.	
	LG confirmed Letter of No Impediment (LoNI)s will be applied for, for bats and badgers.	
	Questions and Clarifications	
	LG explained habitat survey results did not identify areas which could support high populations of reptiles. Sand lizard and smooth snake are both considered absent.	
	LG proposed habitat manipulation and carrying out vegetation clearance in two stages under Ecological Clerk of Works to minimise impacts on amphibians and reptiles.	
	A District Level Licence application has been submitted for Great Crested Newts.	
	OC invited questions on the baseline.	
	LiS stated that Natural England (NE) would not advise on licences required outside of a designated site, and that it is the Applicants' decision as to whether they wish to apply for a licence/LoNI.	
4.	ES Progress	LG
	LG reported no change in overall approach since the last ETG. All surveys have been completed.	
	<u>Cumulative Effects Assessment</u>	
	LG highlighted possible cumulative construction phase impacts with the Hornsea Four Offshore Wind Farm project, and potential operational and	



	decommissioning phase impacts if the same species or habitats are impacted.  Both Hornsea Four and DBS will address their individual impacts with the aim to minimise those impacts to minor or negligible.  OC invited questions or comments. No questions or concerns were raised by stakeholders.	
5.		TC
5.	Biodiversity Net Gain (BNG) BNG Impact Scenario	TC
	TC invited comments and questions from stakeholders throughout.  TC provided an overview of the BNG Impact Scenario, and the number of habitat units impacted. A near no net loss scenario was presented.	
	BNG Impact Scenario - Hedgerows	
	<ul> <li>85 hedgerow units will be retained.</li> <li>19 hedgerow units will be lost.</li> <li>24 hedgerow units will be reinstated.</li> <li>Total +5 hedgerow units achieved on site.</li> </ul>	
	BNG Impact Scenario - Watercourses	
	Retention methods mostly through trenchless crossings using trenchless crossing techniques such as Horizontal Directional Drilling, as well as avoidance and reinstatement after temporary loss of 2 years.	
	<ul> <li>25 watercourse units will be retained.</li> <li>2 watercourse units will be lost.</li> <li>&lt;1 watercourse unit will be reinstated.</li> <li>-1.69 watercourse units in total, which indicates a minor loss. TC stated this is a good starting position.</li> </ul>	
	TC invited comments on the above. No questions or concerns were raised by stakeholders.	
	Assumptions and Agreements Sought	
	TC summarised the assumptions made by the Project regarding BNG.	
	TC asked the ETG whether they had any comments regarding delivering a no net loss scheme that delivers biodiversity gains where possible. No comments were made by stakeholders.	
	TC asked the ETG whether they agree to applying the "temporary loss" approach to arable/ cropland habitats which have soils reinstated within 2 years. JW stated the approach seemed reasonable and well justified, particularly considering the interim habitat type is functioning bare earth.	
	LiS commented that NE could not advise on this matter at the last ETG as NE did not have anyone with expertise on BNG. A staff member has recently taken up this role and they are likely to comment on the BNG Strategy with high level comments, but this is likely to constitute standard advice rather than in-depth comments. LiS confirmed this will not be an area of disagreement and that BNG is not mandatory for the Projects. The Soil Management Plan is most likely to be commented on.	
	RT confirmed the results of Agricultural Land Classification (ALC) Survey at the Onshore Converter Stations, where permanent loss of agricultural land would result, and found the area of permanent loss to be grade 3b rather than 2. The residual effect would remain significant.	



1	LiS to share the NE SoCG template and advise RT on how NE would like the SoCG	LiS
Action ID	Action	Owner
	RT thanked stakeholders for their input and highlighted that RWE would be in contact during and after the DCO submission.	
	LiS commented that NE's particular area of interest is on designated sites issues, which have been resolved over email correspondence.	
	so had no further comments.	
	habitat. CE stated nothing had been passed on to her by YWT's ecologist on this project	
	comments. JW stated ERYC are happy with progress and are positive regarding the approach to the recent design update (i.e. avoidance) to address the priority	
	OC requested final thoughts from stakeholders and opened the floor for	
	RT clarified that Deadline 1 is first deadline in the DCO examination process.	
1.	OC provided a summary and provided next steps.	
7.	Next steps & AOB	OC
	are mostly avoided by way of design.  LiS confirmed that she would comment on the Agreement Log when issued.	
	river corridors potentially being an issue but was happy with the Precautionary Method of Works regarding this. TC confirmed that the HDD or other trenchless technique would cover this issue. JW confirmed that she was happy that impacts	
	Regarding the Agreement Log (ID 14), JW mentioned grass snakes alongside	
	asked her to let RT know if there is any particular way in which NE would like the SoCG presented. RT presented the Agreement Log and brought the ETG up to date with previous proposed agreements as set out in the Log.	
	Statement of Common Ground (SoCG) for Deadline 1.  RT asked LiS whether she could share the NE template on SoCG (if it existed) and	
	RT let the ETG know that the Agreement Log would form the basis of the	
6.	Agreement Logs	RT
	TC invited comments from stakeholders. No questions or concerns were raised by stakeholders. TC summarised next steps for the BNG assessment.	
	RT let the ETG know that further exploration of external options is being undertaken on achieving a BNG, where possible but the Projects were not committing to 10% at this stage.	
	initiatives such as the Humber Forest Project.	
	was available within the same Natural Capital Assessment (NCA) programme but there is one adjacent land parcel outside the Onshore Development Area. TC noted that by the time that the DCO permission was granted there might be an NCA available. At this stage ideas were being explored to link up with existing	
	TC summarised BNG delivery options on- and off-site, and highlighted that discussions have progressed with the Environment Bank, where no habitat bank	
	BNG Delivery Options	
	documents have been submitted (at the DCO submission stage). YWT encourage a 10% net gain as standard good practice.	



	no NE template exists specifically for Agreement Log submissions, but there is a template related to Risks and Issues following relevant representations.	
2	LiS and other stakeholders to comment on Agreement Log when issued.	LiS

	Onshore Flood Risk and Geology ETG			
	Document Number: 005131490-01			
N	Meeting with: Onshore Flood Risk and Geology ETG			
	Location:		Online - Microsoft Teams	
Start	Time of Meeting:	1pm	Date of Meeting:	20 <sup>th</sup> March 2024
	Attendees	Initials	Role & Organisation	
		RT	Onshore Consents Manager   RWE Renewab	les
		OC	EIA Project Manager   Royal HaskoningDH	V
		HW	Flood Risk & Hydrology Lead   Royal Haskoning	DHV
		SF	Flood Risk & Hydrology Consultant   Royal Haskor	ningDHV
		KD	Geology and Land Quality Consultant   Royal Hask	oningDHV
		CM	Geology and Land Quality Lead   Royal Haskonir	ngDHV
		JB	Onshore Support   Royal HaskoningDHV	
		MW	Planning Specialist   Environment Agency	
		DP	Flood Risk Advisor   Environment Agency	
	HJ Land Drainage and LLFA Consultant   East Riding of Council			Yorkshire
		RG	Flood Risk Consultant   East Riding of Yorkshire (	Council
		JC	Engineering Advisor   Beverley and North Holdernes Drainage Board	ss Internal
	Apologies	Initials	Role & Organisation	
		RJ	Biodiversity Technical Specialist   Environment A	gency
Meeting Agenda/ Objective(s):		<ul><li>Pro</li><li>ES</li><li>Upo</li><li>ES</li></ul>	Icome and Introductions iject Update Update Chapter 20: Flood Risk and Hydrology date of Flood Risk Assessment Update Chapter 19: Geology and Land Quality reement Logs B	
Item		D	escription/ Discussion	Presenter
1.	Welcome and Intro OC welcomed the Ex themselves.		Group (ETG) and invited attendees to introduce	OC
2.	Project Update  RT introduced and provided an overview of the project. Recapped onshore infrastructure and highlighted only one minor change to the onshore cable route since the last ETG in December 2023.  RT summarised progress on the EIA since last ETG meeting and that the DCO submission remains targeted for May 2024.			RT

	DT recognized the interesting consumers and consential accompanies and president	
	RT recapped the in-solation, concurrent, and sequential scenarios, and project durations.	
	RT provided an overview of the status of the DCO and the proposed construction and operation dates.	
3.	Environment Statement (ES) Update Chapter 20: Flood Risk and Hydrology	SF
	Agreement Log and Actions from last ETG	
	SF provided an overview of the actions and comments from the last ETGs in December and how these were addressed.	
	<u>Update on ES Assessment</u>	
	SF highlighted that the Skipsea Drain (West Branch) was due to be open cut and is now subject to Horizontal Directional Drilling (HDD). The ES assessment is not affected by this change.	
	The preference for the Arnold and Riston Drain is HDD but the open cut option is retained and assessed within the ES as a worst-case scenario.	
	JC commented that the Arnold & Riston Drain is pump-fed so if the open cut approach is taken there are concerns there would be an overwhelm of water. Large pumps likely needed to mitigate that effect. JC was very keen for HDD to be used rather than open cut.	
	IDB Crossings Recap	
	SF recapped the IDB crossings and the proposed crossing methods.	
	JC queried whether the riparian watercourses as well as the IDB maintained drains have been picked up. SF confirmed this would be addressed on the next presentation slide.	
	JC commented that the list of crossings still looked to be short. RT confirmed the Flood Risk Assessment (FRA) was sent to JC ahead of the ETG, but the list of crossings would be sent after the ETG. SF assured JC that the crossings listed are accurate, based on the information available. If, following review. there are any that have been missed we would welcome further information.	
	Update on the Water Environment Regulations Compliance Assessment	
	SF outlined a change to the crossing schedule and highlighted it does not affect the outcome of the compliance assessment.	
	Embedded Mitigation Measures	
	SF summarised the embedded mitigation measures and key mitigation added.	
	RT highlighted to DP the text around minimum bed level crossing for future flood defences and monitoring flood defences included in the list of mitigation. DP confirmed he would finish reviewing the documents circulated ahead of the ETG post meeting and let RT know regarding any comments.	
	No comments or queries raised by other stakeholders.	
4.	Update on Flood Risk Assessment (FRA)	HW
	HW provided a summary of the key changes to the FRA and outlined that these changes do not affect the conclusions of the FRA.	
	HW requested any comments or queries from the ETG on the draft FRA and stated comments can be made post ETG.	
	No comments or queries were raised by stakeholders.	
5.	ES Update Chapter 19: Geology and Land Quality	KD
	Potential Effects During Construction, Operation, and Decommissioning	
	KD provided an overview of updates to the ES. With the implantation of mitigation measures, including both embedded and additional mitigation, there are no significant adverse impacts to receptors during the construction and operational phases of the Projects.	

KD stated decommissioning impacts are yet to be assessed but it is anticipated that potential impacts would be similar in nature to those during the construction phase. It is anticipated that there will be no adverse impacts as a result of decommissioning.

<u>Cumulative Effects Assessment</u>

KD summarised the findings of the Cumulative Effects Assessment and summarised the findings as being no significant effects arising from the projects reviewed.

No comments or queries were raised by stakeholders.

#### 6. **Agreement Logs**

RT summarised the agreement logs and the process leading up to drafting a Statement of Common Ground, and how the agreement logs feed into this.

RT highlighted there are two logs: the Flood Risk & Hydrology agreement log and the Geology & Land Use agreement log.

### Flood Risk and Hydrology Agreement Log

RT asked the ETG whether they are agreed on ID 15 in the agreement log.

JC commented that the mitigation text should make it clear that the haul road in flood zones 2 and 3 needs to be free draining and should not hold up existing flows across the site. RT to check the wording in OCoCP reflects this.

DP raised that flow being diverted elsewhere and affect existing flow routes due to level changes should be considered. RT included a comment in the agreement log reflecting this.

RT asked JC about lessons learnt from previous projects regarding open cut crossings. JC responded that HDD would be the Board's preference, but that reinstatement and gas pipelines are issues that have been encountered on projects previously.

RT asked JC whether there was anything that could be included in the OCoCP at this stage to improve the open cut methodology and provide the Board with greater reassurance. JC responded that consideration of ground conditions was the primary consideration for reinstatement, so to consider the time of year the works are taking place, soil moisture levels, and predictions of rainfall events. Additionally, using the correct pumps and adequate over pumping, as well as siltation measures are important, as well as not leaving anything open over periods of non-working, such as a weekend.

RT asked if adding these specific methods would help the Board feel more comfortable with an open cut being possible. JC responded it would, as well as compliance with the Board's consenting process, which includes providing method statements and risk assessments.

HW stated she has seen OCoCPs which have given more information about weather warnings and suggested she could add information around adverse weather. HW to look back at other OcoCPs and see whether there are things that can be incorporated.

JC's remaining concern was over enforcement of protection measures. RT agreed to take this away. JC agreed to reserve judgement on the adoption of Protective Provisions until RT has reverted with information regarding this.

RG agreed with points made by JC and stated he would like to attend any meetings on this subject going forward.

JC to send RT application form and guidance notes on standard permitting process for the IDB. RT to cross check against the text in the Protective Provisions.

[Post Meeting Note: these have been received]

JC also raised concerns about the Land Drainage Consent fees they collect for each application and the potential loss of this income stream. RT agreed to look into the options for this with the Legal team.

RT

7.	JC also queried who would pay the Internal Drainage Board's application fee and stated the fee is £50 per crossing, which the Drainage Board would prefer was paid per crossing, rather than as a lump sum. RT agreed to also take this point to the Legal team.  DP agreed to send a copy of the Environment Agency's (EA) Model/Draft EA Protective Provisions to RT.  Geology and Land Quality Agreement Log  RT summarised agreement log and outlined the agreements currently within the log.  ID 7: DP agreed.	RT
7.	RT outlined next steps and highlighted that discussions with stakeholders are encouraged through the rest of the DCO process.	RΙ
Action ID	<b>Action</b>	Owner
1.	RT and SF to send JC a list of all river crossings post ETG.	RT/SF
2.	RT to check wording around the haul road in flood zones 2 and 3 being free draining [Post Meeting Note: updated in the OCoCP - see agreement log]	RT
3.	HW to look back at other OCoCPs and see whether more information can be added around actions to take in adverse weather.  [Post Meeting Note: updated in the OCoCP and Hydrology and Flood risk Chapter - see agreement log]	HW
4.	RT to find out more information around the enforcement of protection measures regarding the reinstatement of open cuts.  [Post Meeting Note: additional detail provided, relevant section of the Protective Provisions extracted, additional text about fees to be added to the draft DCO - see agreement log]	RT
5.	JC to send RT application form and guidance notes on standard permitting process for the Internal Drainage Board. [Post Meeting Note: these have been received]	JC
	RT to cross check against application form text against the text in the Protective Provisions and also to discuss options related to application fees with the Legal team. [Post Meeting Note: additional detail provided, relevant section of the Protective Provisions extracted, additional text about fees to be added to the draft DCO - see agreement log]	RT
6.	DP to send a copy of the Environment Agency's Model/Draft EA Protective Provisions to RT.	DP



		Humar	n Health ETG Meeting		
		Document	Number: 005131494-01		
М	eeting with:	with: Human Health ETG			
	Location: Online - Microsoft Teams				
Start <sup>-</sup>	Time of Meeting:	10am	<b>Date of Meeting:</b> 25 <sup>th</sup> March 20	24	
	Attendees Initials Role & Organisation				
		LT	Onshore Consents Manager   RWE Renev	vables	
		OC	EIA Project Manager   Royal Haskoningl	DHV	
		JB	Onshore Support   Royal HaskoningDI	HV	
		RP	Human Health Impact Lead   RPS		
		OU Environmental Public Health Scientist   UK Health Security Agency			
		LF Deputy Director of Public Health   East Riding of Yorkshire Council			
		AN	Lead on Health and Wellbeing   Department of Social Care	Health and	
Meeting A	<ul> <li>Project Update</li> <li>ES Update</li> <li>Local Liaison Committee Meetings</li> <li>Agreement Log</li> <li>Summary and Forward Programme</li> <li>AOB</li> </ul>				
Item		Desc	ription/ Discussion	Presenter	
1.	Welcome and Introdu OC welcomed the Exp themselves.		roup (ETG) and invited attendees to introduce	OC	
2.	Project Update			LT	
	LT introduced and provided an overview of the project. LT recapped on the onshore infrastructure and highlighted only one minor change to the onshore export cable route since the last ETG in December 2023. LT summarised progress on the EIA since last ETG meeting and that the DCO submission remains targeted for May 2024. LT recapped on the in-solation, concurrent, and sequential scenarios, and project durations. LT concluded an overview of the status of the DCO and the proposed construction and operation dates.				
3.	Environmental Statement (ES) Update  RP highlighted the presentation was a walkthrough of what to expect in the ES Human Health chapter and an opportunity for stakeholders to provide comment.  ES Study Area			RP	



RP summarised the study area, unchanged from the last ETG, and asked stakeholders whether they had any comments or queries on this. No comments or queries were raised by stakeholders.

#### **ES Findings**

RP summarised ES findings and presented the conclusion that there is no potential for significant population level adverse effects. This conclusion is built upon embedded mitigation outlined within other ES chapters.

## Construction and Decommissioning Effects

RP summarised the construction and decommissioning effects and informed the ETG there will be no significant adverse effects due to management plans containing robust mitigation measures.

AN queried whether there are cumulative impacts with other projects. RP confirmed this is discussed later in the ETG meeting but outlined that the overlap with other projects is limited, and it is not anticipated for overlapping effects to result in a greater effect.

#### **Operational Effects**

RP summarised operational effects and concluded that no significant adverse effects are predicted. RP noted that the projects' contribution to energy security is associated with a significant beneficial public health effect.

RP asked stakeholders whether they had any comments or queries on operational effects. No comments or queries were raised by stakeholders.

#### **Cumulative Assessment**

RP summarised the cumulative projects and the conclusions of the cumulative effects assessment. Each overlap with another project has been assessed and no significant adverse effects are predicted. No comments or queries were raised by stakeholders.

#### Interactions

RP explained that combined effects from multiple determinants of health to the same populations are temporary and low-scale effects e.g. dust and noise effects during cable laying. The combined effects are not expected to elevate any effects to significant adverse at construction, decommissioning, or operation.

#### Operational Noise

RP summarised the operational noise effects and summarised the impacts as negligible. The Human Health assessment has taken a more conservative approach and assigns impacts as minor adverse (not significant).

#### Example of Inputs from other EIA topics

No comments or queries were raised by stakeholders.

RP summarised inputs from other topics, including the Landscape Visual Impact Assessment and how these results informed the health assessment, including any impacts to mental health. No comments or queries were raised by stakeholders.

### 4. Local Liaison Committee (LLC) Meetings

LT summarised the purpose of LLC meetings, three meetings that have been held to date, and the attendees. LT informed the ETG there were no concerns were raised during LLC meetings. There were some queries around traffic and transport and the Projects were able to provide reassurance around controls proposed within the Outline Construction Traffic Management Plan.

LT



5.	Agreement Logs  LT summarised the Human Health Agreement Logs and LT and OC requested	LT
	feedback from the ETG. No comments, disagreement or queries were raised by stakeholders.	
	OC informed the ETG that the agreement logs will form the basis of the Statement of Common Ground.	
	OU commented she is happy to speak with the UK Health Secretary Agency's (UKHSA) lead on agreement logs to provide feedback.	
	AN stated that the common practice was for UKHSA and OHID to comment via letter as to their views on the assessment and whether they wished to participate in DCO Examination.	
6.	AOB	OC
	OC invited any comments or queries from stakeholders.	
	OC made it clear no adverse comments raised indicates that the ETG is happy with the human health topics covered in the ETG.	
Action ID	Action	Owner
1.	OU to speak with the UK Health Secretary Agency's lead on agreement logs to provide feedback. Other stakeholders to confirm agreements drafted in the Agreement Log.	OU



DBS Draft Auks Compensation Meeting ETG						
Document Number: 005127450-01						
Meeting with:	DBS Draft Auks Compensation ETG 2					
Location:		Online – M	icrosoft Teams			
Start Time of Meeting:	9am	Date of Meeting: 10 <sup>th</sup> April 2024				
Attendees	Initials	Role & Organisation				
	DB	Offshore Consent Manager, RWE				
	AC	Offsho	ore Consent Lead, RWE			
	HP	Cor	nsent Manager, RWE			
	CC	Environm	ental Consultant, RHDHV			
	PP	Techi	nical Director, RHDHV			
	PM	Senior Enviro	onmental Consultant, RHDHV			
	EJ	Senior Responsible Officer, Natural England				
	PC	Case Officer, Natural England				
	RP	Case Officer, Natural England				
	MT	Ornitholog	y Advice, MacArthur Green			
	IC	lar	n Cain Environment			
	НА	Compe	nsation Application, CEA			
	FC	Compe	nsation Application, CEA			
	RJ	Senior Marine Orni	thology Specialist, Natural England			
	MK	Principal	Advisor, Natural England			
	AM	Lead Scie	entific Case Support, RSPB			
	AD	Head	d of Case Work, RSPB			
	ZT	Marine Lice	encing Case Manager, MMO			
	BD	MMO				
Apologies	Initials	ls Role & Organisation				
None from the Wildlife Trust						



# Meeting Agenda/ Objective(s):

- Project updates
- Predator eradication / reduction
- Bycatch and ANS
- Next steps
- AOB

Item	Description/ Discussion	Presenter
1	Project Design Update  AC presented a summary of the DBS Projects timelines.  AD queried if submission will be early or late May?  AC – Will be late May.	AC
2.	Assessment Results for Submission	PP
	PP ran through the draft results, had further feedback from NE on the numbers. Intention for compensation to cover off a range of numbers. In terms of conclusions:	
	<ul> <li>Razorbill on a without prejudice basis.</li> </ul>	
	RJ noted that NE have not seen the full assessment so cannot comment in the numbers or conclusions.	
	PP acknowledged this, wanted to provide an indication of where the numbers are at currently.	
	MK mentioned that SEP/DEP has a single combined plan for both guillemot and razorbill given the likely similarity in measures. When they saw the H4 decision they removed razorbill from the plan.	
	PP stated that this will be considered.	
	MK stated that Farne Islands and Guillemot are under consideration due to the Berwick Bank offshore wind farm. He suggested checking outside of the breeding season and foraging range.	
	MT confirmed that the Farne Islands do not have breeding season connectivity for guillemot, only non-breeding.	
	MK noted that this is something for the RIAA to consider, expecting a Berwick Bank decision soon.	
3	Predator Eradication / Control	PP/IC
	Potential Sites	
	MK questioned why three were flagged to be removed. He mentioned that he did not see evidence of mammal predation in the English sites, given the sheer size of the cliffs at Flamborough, and also no evidence of rats accessing the nests. He	



stated that Hornsea Project Four (H4) went into a number of these sites in detail as part of their short-listing and scoped several of these sites out. H4 had listed further details on rat presence, is some additional information in that report.

IC stated that for H4 screening, he came into the project once Guernsey was selected as the site for predator eradication. The H4 screening is aged now, being from 2020/2021. Mentioned that the study was desk-based and was done to see if some of these sites (in particular Anrtrim) warrant further examination. He thinks these sites should be in the short-list at this stage.

MK stated that IC should read the H4 report to see if some of these sites should be scoped out.

IC noted that on Muck Island, they didn't want a drip feed of rodenticides, therefore, the population is being controlled as opposed to eradicated.

# ACTION – IC to review H4 plans to determine if any further sites should be screened out.

RJ referred back to the feasibility study done in relation to H4 study and flagged a concern that the short-list is very short. They stated that there is potential for further investigations to reveal that none are suitable, and noted that the aim is to issue a full plan with DCO. Asked if there was any further progress behind the scene and if not, how will this happen prior to submission?

PP stated that for application, a plan will be submitted with a shortlist, and that feasibility studies will have to take place over the examination period.

ZT queried if RHDHV have been speaking to the site wardens or NRW yet, or just the ETG?

PP clarified that so far it is just this group that auk compensation been discussed with.

IC mentioned that at the same stage in H4 the Guernsey site came up for them. He stated that access and support is a critical one, and that anecdotal information has bene used solely at this stage. He mentioned that we need to understand the current situation around rat presence and habitat suitability for breeding auks, and undertake some projections if there is sufficient space for more breeding auks. He clarified that this is on the basis of this work and that some locations may be taken forward for a full feasibility study.

AD stated that Muck Island is a clear challenge, as it is approximately 100m offshore and accessible at low tide.

IC queried what level of monitoring would be required to protect the location over the long term.

RJ agreed with all of the points noted in the immediate actions slide. More work could be undertaken regarding the current auk populations, trends and population productivity.

IC confirmed that some of those locations off Wales are difficulty to access and that this will be explored further in speaking with local organisations.

MK – Comment for RWE: Stated that what H4 submitted was more advanced than DBS are planning to submit. H4 did delay submission due to amount of information they could gather. Inaccurate to say we are at a similar stage as H4.



IC responded that on the H4 study, several of the sites listed were at a similar desk-based study level as ours, rapid advancement of Guernsey option reduced need to review other options.

PP added that a progress report will be completed and submitted at the first examination deadline.

MK highlighted that RHDHV should be prepared to accept that the H4 conclusions are still relevant. Regarding the long-list, MK is interested to see why the Scillies dropped off at the long-list stage, why did this not progress.

IC understands RSPB are trialling some new methods, we have not pursued this line at this stage.

MK mentioned that H4 did not progress with the Scillies but could remember why they did not.

IC noted this was likely because of the eradication opportunities on Guernsey advanced rapidly.

PP noted the Projects can look to revisit the Scillies as an option.

#### ACTION - IC to revisit eradication options on the Isles of Scilly.

AD highlighted that this may be an additionality point given its an SPA - Key challenge.

RJ supported revisiting the Scillies as an option, varying opinions regarding the additionality point. SPA's are important locations, and stated that they should be an option for compensation, and that if plans are in need of financial support this should be reviewed. Mentioned reviewing Scottish sites again, and asked if RHDHV has a short-list for those.

PP noted that regarding Scottish sites, if we need any further sites we can review again, but we're not looking to shortlist any. Feedback from previous meetings clarified that we should not discount them, which will be noted in the documentation. PP stated that it is not practical to have a list of 20 sites to bring forward for full feasibility study, and that there is a need for a more focused list.

#### Plan Structure

PP detailed the structure of the plan to be submitted alongside the DCO application.

MK noted that it looked like the standard approach.

AD understands that it might come in the examination deadline 1 update, but asked how social acceptability will be considered. He noted that this is one of the key points that takes time to get sorted, depending on location, and asked how this will be commented on within the plan.

IC confirmed that there will be some high-level stakeholder engagement, but for ones that may progress to full feasibility, we would need to conduct detailed conversations later on.

AD added that it may also be an issue around the Scillies, as it is not completely clear on the plans for the Scillies, but believe the plan involves a wide geographical area. Potentially has the largest impact on timescales.

IC stated that given location of some sites near the mainland, there would need to consider mainland stakeholder engagement.

PP noted eradication is seen as a primary measure.



#### **Bycatch Reduction and ANS:**

PP noted that feedback from the last meeting was that both options should be retained. Difficult to determine how these measures should be retained.

Regarding ANS, PP stated that we could have ANS on platform structures, but not sure how useful that would contribute to the compensation piece. He then asked if they count for the compensation numbers.

RJ mentioned that bycatch should be retained as a secondary measure, and that ANS should be retained as adaptive management.

PP agreed with this, but questioned whether having an eradication site provides enough for the eradication numbers, or if further measures are needed.

RJ added that adaptive management measures do not have to be the same measure but adapted, they should be there if the main compensation plan does not deliver. Understands there is uncertainty around the impacts of rat removal, but states that while adaptive management is part of the compensation plan but agrees it can be considered a separate plan.

MT notes that adaptive management is by its nature adaptive, to a degree in which we have to adapt to the situation that arises.

RJ stated that the effort placed in adaptive management is proportional to confidence in the main measure. Worth considering H4's approach.

AD added that bycatch measures are currently at the research stage with no confidence in the data, and only one peer reviewed study. He stated that he would not use it as a contingency measure, and it should be classed as under research, very sceptical during H4 examination on bycatch measures. Current data not looking promising, but notes further research could change this position.

PP states that this is the issue of how the measures are weighted - How we put the non-primary measures into the plan and the level of effort placed into those elements. PP asked how this contributes to compensation if bycatch is a research project.

AD argued that its very fisheries dependent on the implementation of any measures.

MK stated that in terms of how it can be adaptive management for ANS, it would essentially be trialled and if it works then rolled out as adaptive management. No one has yet trialled artificial nests for auks offshore, which subsequently makes this adaptive management not work given lack of evidence base. NE will take this away and review. He stated that they are struggling with where the by-catch measure would sit, as evidence points towards weak effects at best. He claimed it is a risk that any financial incentive around this could result in an increase in by-catch. He mentioned that this could be conducted as a watching brief unless running trials are undertaken.

PP suggested the potential of aligning to the watching brief lines, and if it was looking good RHDHV could switch to that measure.

MK commented that this almost becomes more of an adaptive management measure.

PP added that ANS is effectively a trial for adaptive management, bycatch will be a watching brief. Highlighted this was a useful discussion, as everyone struggles to determine how these measures sit in an overall package. In line with the



kittiwake strategic plan, PP stated that they will be including fisheries closures if they can be considered as compensation.

RJ queried if RHDHV will be referring to the sandeel closure as compensation for auks.

PP confirmed that the Kittiwake plan notes how such strategic measures can be beneficial, and stated that this is noted in the plan.

RJ added that for guillemots, sandeels are less of a key species.

ACTION - NE to review terminology regarding compensation measures.

#### **Strategic and Collaborative Delivery**

PP mentioned that collaboration is a favoured option, and that ongoing discussion are being done with other offshore wind farm projects.

MK stated that now Outer Dowsing is well developed, they and Five Estuaries are looking at other management measures in south-east England e.g., visitor management. One instance where collaboration should be looked at. Collaboration across project / industries could be very powerful.

PP asked what options are being considered for this?

MK mentioned that it is in an exploratory phase - management of visitors, water sports etc.

PP noted this was considered as part of the regional Scotwind work (site disturbance measures) but stated that the issue is trying to implement anything, and that there is difficulty with also trying to promote access.

MK agreed and said that it is difficult even at well managed sites, but feels there is something further in this idea.

PP asked whether there it is due to be discussion with COWSC in the latest Defra roadmap.

RJ stated that In terms of the COWSC, a meeting is planned to be an overview meeting. The aim is to look at how to restructure the group following approval by the SoS regarding the three approved compensation measures.

PP highlighted that RHDHV will include wording in the DCO to allow delivery through strategic means.

MK mentioned that appropriate wording was sent to DESNZ but added that he has not heard back yet. Interesting to see if this factors into any SEP/DEP decisions.

PP

### 4. Next steps/AOB

- Finalise proposals for DCO submission:
  - Refined site list (with stakeholder input)
  - Project level plan(s)
- Next steps to examination
  - o Informal / formal enquiries
  - Site characterisation



	<ul> <li>Refine site list</li> <li>Consultation?</li> <li>Progress report for D1</li> <li>PP noted that another compensation meeting will be scheduled pre-examination</li> </ul>			
	in July/August to provide updates.  MK wanted to know in terms of update timing, if it could be after the relevant reps deadline. He stated that an informal discussion can still influence our advice, and that it needs to be focused on the application itself.  PP stated that he will take this into account for timing, and that an update will be on what would be submitted at deadline 1.			
Action ID	Action	Owner		
1.	Review H4 plans to determine if any further sites should be screened out.	IC		
2.	IC to revisit eradication options on the Isles of Scilly.	IC		
3.	Natural England to review terminology regarding compensation measures.	NE		

**Appended Documents** 



DBS Benthic HRA and Compensation Meeting ETG					
Document Number: 005127450-01					
Meeting with:	DBS Benthic HRA and Compensation ETG				
Location:	Online - Microsoft Teams				
Start Time of Meeting:	10am <b>Date of Meeting:</b> 11 <sup>th</sup> April		11 <sup>th</sup> April 202	4	
Attendees	Initials	Role & Organisation			
	DB	Offshore	Consent Manager, RWE		
	AC	Offsho	re Consent Lead, RWE		
	HP	Con	sent Manager, RWE		
	CC	Senior Enviro	nmental Consultant, RHD	HV	
	PP	Techr	nical Director, RHDHV		
	HA		CEA		
	EM		CEA		
	EJ	Senior Respor	nsible Officer, Natural Engl	land	
	PC	Case C	officer, Natural England		
	RP Case Officer, Natural England				
	LB Principal Advisor, Natural England				
	KR JNCC				
	NW Marine Licencing Case Manager, MMO		0		
	AMH		MMO		
	TD		Γhe Wildlife Trust		
		BF Lincolnshire Wildlife Trust			
A 1 1	PM		Cefas		
Apologies	Initials	RC	le & Organisation		
	• We	lcome and Introduction	S		
	• Pro	ject Update			
	• RIA	A Conclusions			
	<ul> <li>Compensation</li> </ul>				
Meeting Agenda/ Objective(s):	<ul> <li>AO</li> </ul>				
	• Sur	mmary and Next Steps			
Item	Desci	ription/ Discussion		Presenter	
	2 030.				



1	Project Design Update	DB
	DB presented a summary of the DBS Projects timelines.	
2.	RIAA Conclusions	PP
	PP ran through a summary of the Benthic RIAA conclusions. Conclude AEol on Physical Change (to another seabed type) for Projects alone and in-combination.	
	Conclude no AEOI in relation to abrasion/damage, for Projects alone and incombination. RWE consider Plan level RIAA covered abrasion in a high-level manner.	
	Reviewing previous work (e.g., Eggleton work on fished / non-fished areas) and based on met mast survey conducted by RWE, there will be a short-term, temporary disturbance. This should be seen in context of at least 4 years of recovery from bottom trawling effects across whole SAC. PP appreciates NE advise recovery is 10-25 years and is happy to discuss when this guidance is made available.	
	LB stated that the plan level HRA took forward compensation for disturbance, and so it is unlikely that NE will take that any further as it is already covered. Regarding no compensation needed for disturbance, NE would argue that the byelaws are for the impacts of fisheries and do not take into account impacts for DBS, and do not agree with this argument. Plan level compensation may be sufficient, but this is a different argument.	
	PP highlighted that none of our evidence that he has seen indicates disturbance is a long-term effect. Very little arguments or evidence provided in the plan level HRA behind the AEOI conclusion regarding abrasion/disturbance.	
	KR stated that while there is a cessation of bottom trawling activities, there are other ongoing activities in the Dogger Bank e.g., oil and gas, offshore wind etc.	
	PP accepted this point, however mentioned that the only real conclusion for habitat loss is based on the site being in unfavourable condition. PP pointed out that temporary disturbance has had a different conclusion in recent decisions.	
	LB –stated that NE doesn't disagree the fact that other projects have identified recovery, the onus on RWE to demonstrate that the recovery they predict is likely. Expect an outline cable installation plan to provide that recovery achievable in the short term. Action to provide SNCBs reassurance that recovery from cable installation will occur on the short term.	
	PP noted feedback from recent ETGs on inclusion of sandeels. Confirmed that sandeel habitat in relation to Dogger Bank SAC and Southern North Sea SAC has been considered in the assessment. This is included as an appendix to the RIAA.	
	TD asked if the underlying mapping is available now to share?	
	PP responded and said that it is based on MarineSpace methodology, included in the RIAA appendix.	
	PP then summarised the assessment of Humber and Flamborough SAC, which were based on the ES marine physical environment assessment, concluding no AEoI from potential changes in bedload sediment transport.	
	EJ stated that discussion around cable protection in the nearshore is ongoing with respect to the Humber.	



	PP accepted that this topic will likely be revisited post-application.	
3	Compensation  DD summarised the current timelines for compensation	PP/HA
	PP summarised the current timelines for compensation.  LB stated that the final TCE plan will not be ready for 16 <sup>th</sup> April. Queried how the TCE plan fits into the Projects alone.	
	Post-Meeting Note - this has now been finalised by the Steering Group and adopted by the Crown Estate (available through the Crown Estate website).	
	PP stated that RHDHV will submit a project level plan with the TCE plan appended.	
	TD asked if RHDHV are allowing time to submit the project level plan to the ETG for comment?	
	PP confirmed we are not – noted there is no new info in this plan than that already in the TCE plan.	
	TD - Highlighted that it has been a regular comment from JNCC that this period of time prior to application is very important for commenting on documents, and asked if RHDHV can send even a draft as that would be appreciated.	
	PP apologised as RHDHV will not be able to do that but offered sharing documents ASAP after submission.	
	TD asked if any redefinition of the Project envelope has been done as part of project level compensation plan.	
	PP stated that there have not been any material changes, but there have been changes regarding lengths of cable and cable protection.	
	HA highlighted that the project level plan will be a signposting document to the TCE plan where most of the detail sits. HA summarised the primary, secondary and contingency measures, and stated that from recent TCE calls, we understand there will be updates to the secondary measure section.  Seagrass	
	LB stated she does not think seagrass restoration can be classed as a contingency measure and stated that NE we will be quite clear in their comments, and stated that something else would beneeded in combination with the restoration.  LB stated that adaptative management should be able to deliver compensation on its own in the plan but in the background, and is hard to follow how its presented in the slides.	
	PP noted this has been discussed in recent ETGs with NE regarding terminology on compensation and agreed it's ill defined. Will be caveated in the plan. PP agreed it cannot deliver the scale of compensation needed, therefore, RHDHV is looking for the right wording for how it is put in the plan.	
	HA stated that the CEA can look again at the wording; the caveat is that no one expects seagrass to deliver the full quantum of compensation. HA highlighted that the key point is that the Projects are not relying on this as a measure by itself.	
	TD argued that it is essential in how its framed, as this is important for PINS. TD stated they will extend time at examination discussing this and believe this does not provide compensation. TWT do not agree that fisheries restrictions can be considered as additional and believe focus should be on the primary measure as the only one that is viable.	



HA noted that this is a challenge as there is a lack of detail in the TCE plan regarding scale and timelines. There will be meetings with Defra shortly to discuss level of detail in strategic plan, which will look for confidence in implementation timescales. There has been a need to look at alternative measures in light of this uncertainty.

PP indicated that it is hoped Defra will be updating wording for fisheries measures, and if so, will be reflected in the project level plan.

### New Site Designation or Extension

HA summarised forms of site designation. Noted divergence between conclusions of Plan level HRA and projects RIAA.

LB stated that the 2.25km² habitat loss is more than the Plan level loss.

HA understands the draft strategic compensation plan has been updated to align with the recent DBS numbers but this is to be confirmed in the final version.

#### **ACTION - CEA check with TCE on divergence numbers**

Post-Meeting Note - Any differences in the predicted impact assessed at the plan versus project level will be outlined within the Project Level Dogger Bank Compensation Plan.

### Strategic Delivery

HA summarised the potential extension plans. HA stated that RWE has undertaken survey work north of the SAC to understand potential for extension, and that this info was shared with the steering group.

HA stated that having a statement from Defra regarding their roles and responsibilities would be helpful, as it is hard to determine roles at present.

PP added that at present RHDHV have a single email form Defra regarding the compensation measures, and that something more formal would be helpful.

HA noted that further information has been released recently on MRF.

LB added that Defra is discussing MRF, and that DESNZ is not accepting reference to this as it has to go through parliament. NE advising to call it Strategic Compensation Fund - to be agreed at a later date. NE added that legislation must be changed for it to be setup, and that they are conscious that the two departments are calling it different things.

HA suggested using MRF terminology in terms of the submission and can include caveat on Strategic Compensation Fund wording.

LB recommended that an outline SIMP for DB is used. LB added that the precedent has been set by Norfolk projects, and they provide an outline of what outcome of success looks like. LB stated that NE would be asking for it.

HA added that the CEA would think those points would be covered in other documents.

LB added that Norfolk included a BIMP and SIMP, acknowledging a difference between the two.



HA stated that there is a terminology difference here, and that CEA are happy to review those documents and see what was provided- can look to share a skeleton of the report.

#### ACTION - CEA to share CIMP structure with stakeholders.

Post-meeting note - As these documents are still in draft and may be subject to change we are not able to share this ahead of submission, but will share the document as soon as possible post-submission.

TD agreed on the need for information on the Projects linked to refining the project envelope. TD assumed there will still be a need for monitoring, and queried how this all fits into one document or if it is multiple documents.

PP stated that there are two very different monitoring requirements – monitoring for project effects and monitoring for success of the compensation.

#### **NE Checklist**

HA summarised how the extension plan aligned with the NE checklist.

HA asked if NE wording on compensation DCO is coming soon?

LB was not sure, noting there is no lead on this aspect at NE. LB added that a meeting is needed to discuss this.

LB stated that NE will not be engaged in the steering group during examination and will be focusing on the project level only.

HA understood that this was raised recently, and queried how examination will work with regards to project/plan level plan. CEA is keen to get views on timescales and asks when NE considers measures to be contributing to the national site network (i.e., as cSACs, when fully designated etc.).

LB stated that once a site is designated as a proposed SAC (pSAC), NE assume it has legal protections at that point.

KR noted that this was taken from NPS onshore frameworks and does not apply to offshore.

LB added that this was applied to Race Bank recently and recognises that all regulators would take it into account - plan for it becoming designated.

KR stated that terminology needs to stay consistent as it is slightly different for MCZs - at the point where they are consulted on.

HA stated that is this is set out in the plan; CEA will not be reiterating details.

#### Restriction of Future Activities (Fishing byelaws)

HA added that this is not being considered a primary measure. HA recognises the evidence gaps but cannot be delivered at project level. Queried where it can be applied.

Added that there are other ongoing activities within SAC, and that it may be better placed being explored in COWSC forum. No further information will be provided in project level plan above that which is already provided in the strategic plan.



4.	Next steps/AOB	PP
	<ul> <li>Consultation with Defra and PINs ahead of submission</li> </ul>	
	<ul> <li>Finalise project-level compensation plan for DCO submission.</li> </ul>	
	<ul> <li>Next steps for pre-examination and examination phases</li> </ul>	
	<ul> <li>Ongoing stakeholder engagement</li> </ul>	
	o Track progress of Defra / COWSC workstream	
	o Provide update at D1 if appropriate.	
Action ID	Action	Owner
1	Check with TCE on divergence numbers.	CEA
2	CEA to share compensation plan structure with stakeholders.	CEA

**Appended Documents** 



Dogger Bank South Kittiwake Compensation ETG						
Document Number: 005212073-01						
Mee	eting with:	Dogger Bank South Kittiwake Compensation ETG				
Lo	ocation:	Online - Microsoft Teams				
Start Tin	me of Meeting:	10am <b>Date of Meeting:</b> 25 <sup>th</sup> April 2024			24	
At	tendees	Initials	Ro	ole & Organisation		
		PP Technical Director, RHDH		nical Director, RHDHV		
		MT	1	MacArthur Green		
		JL	HRA C	onsents Manager, RWE		
		DB	Offshore	Consent Manager, RWE		
		AM	Se	nior Scientist, RSPB		
		LC	C	ase Officer, MMO		
		ZT	Marine Lice	encing Case Manager, MM	10	
		CC	Senior Enviro	nmental Consultant, RHD	HV	
		SB	Graduate Envi	ronmental Consultant, RH	IDHV	
		MK	Principal	Advisor, Natural England		
		RB	B Senior Ornithologist, Natural England			
		RPV Case Officer, Natural England				
		PC Case Officer, Natural England				
		EJ Senior Responsible Officer, Natural Engla			land	
		HA		CEA		
		EM RG	CEA Case Officer, MMO			
			·			
Ар	pologies	Initials	Ro	ole & Organisation		
		AD	RSPB			
		TD	Project updates	Wildlife Trust		
Meeting Agenda/ Objective(s):			<ul> <li>Project updates</li> <li>Conclusions for FFC SPA Kittiwake</li> <li>Overview of the Approach to Compensation</li> <li>Offshore ANS Proposal</li> <li>Any other business</li> </ul>			
Item	Item Description/ Discussion			Presenter		
<ul> <li>Project Design Update:</li> <li>No change since last ETG.</li> <li>DB stated that the DCO application looking to be in May 2024, with consenting in 2025 and earliest construction activities commencing in 2026.</li> <li>Earliest operation in 2029.</li> </ul>				DB/PP		



#### Conclusions for FFC SPA Kittiwake: PP

PP stated we have concluded adverse effects for kittiwake in-combination with other projects, but not for the project alone.

PP asked for any Qs.

EJ stated that before seeing the numbers no agreement can be given. She asked if conclusions were going to be presented for DBS East and West alone.

MT confirmed that the HRA conclusions will be presented presented with for each array, then together and then in combination.

PP stated he understands that no feedback can be given by Natural England at this time.

MK stated that 182 predicted collisions [the DBS E+W total apportioned to FFC SPA] is higher than the equivalent value at Hornsea 2 before the air gap for that project was increased, and Natural England were advising adverse effects alone. He wanted to flag this and stated that the DBS conclusion of no AEoI alone might not be a conclusion that NE supports.

PP understood this and noted.

### **Compensation Quantum: MT**

MT stated that he has been looking into the methods for calculating kittiwake quantum again (on the slides) and stated that they will present details on compensation quantities later in the presentation. He considers that the Hornsea Three approach includes an unnecessary degree of detail (e.g. on age class contributions to recruitment etc.) which has the unfortunate side-effect of making the method difficult to follow, with some double counting and replicate.

MT stated both the Hornsea Three and Hornsea Four methods can be reduced to a single adjustment rate; H3 is a multiplication of 6 and H4 is a multiplication of 3. The reason the Hornsea Four rate is lower is because in their calculation they omitted (the double counting . MT stated he will provide the simpler version of the calculation (i.e. based on Hornsea Four). This will be included in the kittiwake compensation plan with an explanation of methodology.

MK: Wanted to add a few notes on this slide. He stated that Outer Dowsing raised similar concerns about the Hornsea Three method regarding double counting. He suggested looking at the Outer Dowsing DCO submission to compare methods. He questioned the lower limit of the design envelope – as it looks at a 1:1 basis and stated that Natural England cannot support this. He asked RHDHV to look at the final compensation ratio.

MT will review these matters.

Post-meeting note – No amendments made to the materials to be submitted with the DCO application, will be reviewed post-application and any updates made prior to examination deadline one.

HA commented on the Outer Dowsing and agreed with MK, but stated there is no justification in their submission documents for why they consider the Hornsea Four approach to be the most appropriate. She asked if this would have been useful?

MK stated that a rationale would be needed to justify choice of methodology for DBS. He also wanted to check the apportioning – he understands that adults are



used, and asked what value was used in the breeding season against Flamborough – it assumed all adults were from FFC SPA. MT stated 100% apportionment to FFC was used for the breeding season due to the challenge of distinguishing sub-adult birds in digital aerial survey images resulting in small sample sizes and a consequently high apparent proportion of adults present.

MK asked about the apportion to colonies and not age. MT stated that it was close to 100% for FFC.

Action: MT to confirm this in a follow up email (NB: this was answered during the meeting as noted below).

HA asked if NE had any advice with respect to appropriate compensation ratios.

MK stated their advice was to use the Hornsea 3 approach, and in terms of ratios they tend to look at ratios in a wider way and form part of an overall strategy – the presence of at least two structures may lower risk and thus ratios, but additional factors such as the locations of the ANS and distance from one another should be taken into account once those details are finalised. In terms of what NE have seen, 2:1 or 3:1 would be more appropriate for DBS. It's accepted that the general rule is higher ratios for higher impacts, due to the ability to compensate becoming more complex. All depends on structure and location.. NE appreciate that was a vague answer.

MT confirmed the FFC SPA apportioning percentage was 95%, 2% for Farnes and 2.5% from St. Abbs - answered the question above.

AM questioned which colony counts were used for the apportioning estimates.

MT stated that they used the colony counts in the Furness 2015 BDMPS report.

AM clarified that he did not want to know the age, but rather the size of the colonies. MT understood this and reiterated that the approach followed the guidance of the statutory advisors which was to use the numbers in the BDMPS report. AM thanked MT for the clarification.

RJ asked if sabbaticals were applied and if survey data was used to age individuals (in apportioning). MT confirmed no sabbaticals were used and stated that results obtained using two adult proportions in the breeding season population (53% – demographics based, and 100%) had been presented. MT stated the real number will fall within those numbers. Due to the surveys not identifying ages.

### 2. **Approach to Compensation: HA**

HA confirmed that the Projects approach is based on the Crown Estate Kittiwake Compensation Plan

The primary measure to be progressed by the Projects is offshore artificial nesting structures (ANS). Ideally both structures would be delivered collaboratively, but Applicant has included option to develop one offshore ANS on a project-led basis. Strategic delivery via a Strategic Compensation Fund is also being considered.

It is unlikely that the use of fisheries management to increase prey availability can be progressed at this stage, noting the challenges surrounding this measure, but it nonetheless remains an option. Both approaches align with The Crown Estate's strategic plan.

HA



HA stated that discussions regarding collaboration with other projects on the installation of ANS are ongoing and will be able to provide an update on those discussions. They will be ongoing past examination.

**Delivery option:** One onshore ANS – HA stated that this option is intended to mitigate risks associated with the primary compensation measure.

HA added the other options could be considered.

EJ: Onshore ANS – worth looking at the context of how this has been used before. Hornsea Four used seagrass as a resilience measure as it was effectively net gain, not compensation. Didn't get consented in the DCO as a result. NE would be unlikely to support onshore ANS in this capacity as doesn't have same scale as predicted impacts nor the benefits of locating ANS away from the coast.

HA: Recognised this is not a favoured option, noted challenges around identifying appropriate terminology to frame measures and explained that various solutions have been discussed in previous ETGs and wondered whether a 'supporting measure' would be better phrase. Recognised that onshore ANS is not supported by NE. Also noted that this measure could be relied upon to deliver a proportion of the projects compensation requirements to offset, for example, any deficit that is linked to kind of the leading compensation measure. So it's not in here as a measure that would ever be taken forward solely as a sole measure to deliver compensation for Kittiwake. There's opportunities here to potentially rely on it to deliver a proportion of compensation if needed.

RJ: Need clarity over terms but onshore ANS sounds more like adaptive management. Issues regarding effectiveness of onshore and scalability.

MK added that in regard to the sandeel fisheries, no one knows what's happening with those closures at the moment and appreciates that there is a lot going on in that space. He mentioned that the sandeel fisheries have asked for consultation under the trading cooperation agreement.

He stated that a cautious approach needs to be adopted with overselling these.

HA confirmed she was aware of this. She agrees that this needs to be acknowledged but stated that this compensation options remains in the strategic plan which we are seeking to align to. HA recognised the importance of outlining the challenges associated with fisheries management to ensure this does not distract focus away from offshore ANS which is ultimately the primary measure that can be delivered strategically.

HA appreciated that the structure at Gateshead does not have the capacity to meet the compensation requirements for the Projects but emphasised that the structure is in place and implemented. She mentioned that it is included should there be challenges associated with delivery of offshore ANS – this onshore measure can be relied upon to deliver a proportion of the compensation to help offset any deficits that are linked to the Project.

ZT wanted to talk about the artificial nesting. She stated a marine licence would need to be done for this. She stated that a licence is not guaranteed for this structure.



HA understood this.

ZT Regarding collaboration – who would hold the licence if ANS is installed a s result of collaboration? If outside of DCO process, the Projects aren't guaranteed a licence for construction of the ANS. ZT asked that the MMO were kept up to date with this.

HA Some prospective collaborative partners are in process of applying for ML for offshore ANS. Details with respect to marine licensing responsibilities will be established as part of a collaboration agreement.

MK Provision of one project led structure only is likely to provide insufficient nest space for the required quantum or resilience in the face of non-colonisation, given that the DBS predicted impacts are around 2.5 times the size of Hornsea Three Project's impacts. Manage expectations as NE wouldn't support this approach for DBS.

HA We acknowledge there's a requirement in the DCO for the inclusion of two structures. We have confidence in the collaborative option and the project led single ANS is just a fall back in case one structure doesn't proceed on a collaborative basis (e.g. if a prospective partner OWF project does not proceed).

#### 3 Offshore ANS Proposal: HA

HA ran through the detail of the Offshore ANS proposal.

She noted that the proposal aligns as closely as possible to timescales proposed in the strategic plan.

HA then discussed the Offshore ANS Areas of Search (AoS) and BRAG assessments undertaken for the AoS identified. HA highlighted the key constraints identified, which included designated site boundaries, bathymetry, vessel activity and fishing activity.

AoS 'A' was discounted due to depth and bedrock making installation difficult. RJ asked if proximity to other wind farms was being considered in siting, and if all this be will detailed in the application.

HA noted they were a key consideration in the initial investigation undertaken for the strategic compensation plan and will be considered in conjunction with the TCE reporting in the next stage. On the maps, yellow areas denote the highest ecological suitability for an ANS. She stated that this will be presented as part of the application to demonstrate how the work has progressed.

HA discussed the offshore ANS indicative implementation roadmap.

MK asked if we are planning to present a project specific Compensation Implementation and Monitoring Plan (CIMP), or are you going to be leaning more strategic compensation?

HA noted leaning towards submitting standalone CIMP should they be required. It's unclear how strategic Kittiwake CIMP will interact with project level CIMP.

MK noted NE is not sure either if these (project level CIMPs) are required.

ΗА



5.	PP queried how NE will manage the examination stage considering the Outer Dowsing will be submitting just ahead of DBS.  MK noted this is a difficult point, need to submit examination advice on what has been submitted for each project alone rather than 'reading between the lines'. Have not yet reviewed the Outer Dowsing material. OD had discussed rig re-purposing previously. NE have been promoting strategic compensation for a while now, recognise the challenges in implementation.  AOB N/A	CC
Action ID	Action	Owner
1.	Send a follow up email to stakeholders (NE) stating the apportion to colonies (%) not age.	MT

**Appended Documents** 



# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

Appendix F2 - Minutes of Meetings with Shipping and Navigation, and Commercial Fisheries

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 

**Unrestricted** 



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F2 - Minutes of Meetings with Shipping and Navigation, and Commercial Fisheries		ings with Shipping
Document Number:	005028804-02	Contractor Reference Number:	N/A

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Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE

#### **Unrestricted**



Meeting Title	Meeting Date	Consultees		
Shipping and Navig	Shipping and Navigation			
A4691 Pre- Scoping Meeting	21st September 2021	Anatec UK Chamber of Shipping		
Fisheries				
RWE Joint Commercial Fisheries Working Group	30th March 2022	PMSL MarineSpace Rederscentrale Chair of Danish Pelagic Fisherman's Association Danish Fishing Association CRPMEM Normandie CNPMEM Normadie CNPMEM Boulogne German Fisheries Association NFFO Dutch Fishing Representative VisNed North West Dutch Fisheries Producer Organisation Deep Wind Offshore and Former Norwegian FLO SWFPO SPFPO		
PMSL Meeting with Andy Wheeler	27th April 2022	PMSL Consulting and Holderness Fishermen Representative		
PMSL Meeting with Jamie Robertson	29th April 2022	PMSL HFIG		
PMSL & MEP Meeting with Jamie Robertson	12th May 2022	PMSL MEP HFIG		

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Meeting Title	Meeting Date	Consultees
PMSL & MEP Meeting with Andy Wheeler	19th May 2022	PMSL MEP Andy Wheeler Fisheries Consultancy Limited
DBS Commercial Fisheries Working Group	6th January 2023	PMSL MarineSpace Economic Assessment Specialist German Fisheries Association NFFO Dutch Fishing Representative North West Dutch Fisheries Producer Organisation SWFPO Independent Fisheries Consultant HFIG Independent Bridlington Fishermen
DBS Commercial Fisheries Working Group	11th July 2023	PMSL MarineSpace Economic Assessment Specialist Independent Fisheries Consultant Independent Bridlington Fishing Vessel Owner Representative of Dutch Fisherment German Fisheries Association Representative of the Norwegian Fishermen's Association Scottish Fisherman's Federation - Policy Officer Swedish Pelagic Federation Producer Organisation



Meeting Title	Meeting Date	Consultees
DBS Commercial Fisheries Working Group	22nd November 2023	PMSL MarineSpace Norwegian Fishermen's Association CRPMEM Boulogne sur Mer VisNed





#### **Call Overview** 1

Date of Call	21 <sup>st</sup> September 2021	
Time of Call	10:00	
Participants	<ul> <li>(PC) – RWE Renewables</li> <li>(DB) – RWE Renewables</li> <li>(HC) – Royal HaskoningDHV</li> <li>(CC) – Royal HaskoningDHV</li> <li>(SW) – Anatec</li> <li>JM) – Anatec</li> <li>(RM) – UK Chamber of Shipping</li> </ul>	
Call Purpose	Introduction to the Dogger Bank South Offshore Wind Farms and high level overview of shipping and navigation ahead of the Scoping Report being published.	

#### **Agenda** 2

- Welcome and introductions
- Dogger Bank South Offshore Wind Farms:
  - Project background;
  - Current status; and
  - Programme
- Scoping Report and approach to EIA:
  - Approach to Scoping; and
  - Scoping programme
- Shipping and navigation:
  - Scoping Report overview;
  - Further datasets for NRA;
  - EIA and NRA methodology;
  - Questions for consideration; and
  - Next steps.
- AOB

#### **Meeting Minutes** 3

#### Welcome and introductions 3.1

PC led a round of introductions noting that RWE Renewables are the developer of the Dogger Bank South Offshore Wind Farms, Royal HaskoningDHV are the EIA coordinator and Anatec are the shipping and navigation specialist.

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Project A4691>

Client RWE Renewables

Title Pre Scoping Meeting with UK Chamber of Shipping



#### 3.2 Dogger Bank South Offshore Wind Farms

- PC provided an overview of RWE Renewables' offshore wind presence in the UK which includes 11 sites.
- The Dogger Bank South site is located between 100 and 140km offshore and in relatively shallow water given the proximity to the Dogger Bank.
- RM queried whether the distance offshore would limit CTV use; PC noted that it is too
  early to provide any confirmation but given the distance offshore an offshore
  operations base is likely, noting that this is the intention for Sofia.
- RM noted that the Hornsea Four red line boundary shown differed from that publicly available; SW confirmed that when undertaking the NRA it will be ensured that the latest available red line boundary will be considered.
- PC stated that the number of grid connections is still to be confirmed at this stage; RM indicated that a singular export cable corridor would be preferable to minimise impacts.
- The Scoping Report is currently being reviewing internally with an intended submission of 12<sup>th</sup> November. HRA work is ongoing and is expected to conclude in spring 2022, with refinement of the site boundary possible both at that stage and throughout the consenting process.
- RM queried how HRA proceeds in the presence of other upcoming offshore wind farms; HC noted that in this case the already consented Dogger Bank developments will be treated as part of the baseline to ensure the assessment considers the cumulative case.
- The indicative programme is based on DCO Application in late 2023 with a consent decision in mid-2025. These dates are highly dependent on the availability of grid connection with the project likely to be operational between 2028 and 2032.
- RM noted the UK's 40GW offshore wind target by 2030 and queried whether any penalties could apply in the event of projects missing their contribution to this target; PC confirmed that this was primarily a concern for the UK Government but that from a developer's standpoint there is additional motivation (on top of the provision of renewable energy) to make the targets from a financial perspective. HC added that the industry is working to try and unlock some of the areas that slow the process and are outside of project control.
- RM queried the likely MW output of turbines; PC noted that the maximum output of each array area is 1.5GW for 3GW total and work is ongoing to forecast possible future turbine sizes.
- RM asked whether a substation may be required along the export cable route; HC noted that it was not yet clear whether this may be needed. SW added that the Dogger Bank projects are all HVDC and so do not require a booster station but if one is needed a separate risk assessment would be needed.

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**Document Reference** A4691-RWE-MIN-01



#### 3.3 Scoping Report and Approach to EIA

 SW outlined the approach to Scoping and introduced the Scoping programme. It is anticipated (depending on PINS) that the consultation period will run between 19<sup>th</sup> November and 17<sup>th</sup> December with the Scoping Opinion then issued on 24<sup>th</sup> December.

#### 3.4 Shipping and Navigation

- SW presented the study areas being considered for shipping and navigation including for the array areas (10nm buffer) and the export cable route (likely 2nm buffer in the NRA). As part of the cumulative assessment consideration will be taken of routeing beyond 10nm.
- SW presented the navigational features within and in proximity to the array areas, including the other (consented) offshore wind farms and several oil and gas surface platforms. Vessel access to oil and gas installations will require consideration in the EIA.
- SW presented vessel traffic data recorded via satellite within and in proximity to the array areas and used for the Scoping Report noting that coverage during the winter period was poor. A route operated by DFDS Seaways passing at the southern extent between Immingham and Gothenburg was highlighted.
- The vessel traffic surveys for the NRA will consist of two vessels undertaking separate surveys in each array area (Dogger Bank South West and Dogger Bank South East) and in two seasons. These will likely take place between January and March 2022 (winter) and June and August 2022 (summer) and be fully compliant with MGN 654.
- Long term AIS analysis and Anatec's ShipRoutes database will also be used to assist with identification of seasonal variation and adverse weather routeing.
- SW summarised other data sources considered including the MAIB incident data which will be analysed up to the latest 20 years noting previous feedback from the UK Chamber of Shipping.
- SW summarised the likely significant effects and embedded mitigation measures which will be considered and noted that the impacts will also be considered on a cumulative and transboundary basis. SW urged RM to feedback any gaps in the list when reviewing the Scoping Report chapter.
- SW gave a high-level overview of the EIA and NRA guidance, methodology and planned consultation before presenting a number of questions for consideration that are repeated in the Scoping Report chapter and are of particular interest.
- Next steps for the project include the Scoping Report submission and Scoping Opinion publication, with the NRA to be undertaken in Q3 2022 including a Hazard Workshop. The PEIR is planned to be submitted in January 2023 with DCO Application in November 2023.

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Client RWE Renewables

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#### 3.5 **AOB**

- RM queried whether it would be possible to share the slide pack following the meeting; HC confirmed this would be fine.
- Action: Slides to be shared with UK Chamber of Shipping.
- RM appreciated the early outreach and acknowledged the UK Chamber of Shipping's continued interest in the project.

#### 4 Actions

Slides to be shared with UK Chamber of Shipping.



Meeting title	RWE (Sofia & DBS) Joint Commercial Fisheries Working Group
Location	Teams Meeting
Date	30 <sup>th</sup> March 2022 – 10:00 (GMT)
Originator	Nigel Proctor - PMSL
Attendees	(AC) – DBS Offshore Consents Manager (DB) – DBS Offshore Consents Manager (NP) – PMSL Managing Director / FLO r (DP) – PMSL Offshore Operations Manager / FLO BO) - MarineSpace (JV) – Rederscentrale (Belgian Fisheries) FM) – Danish Fisherman and Chair of Danish Pelagic Fishermen's Association (HL) – Danish Fishing Association (CD) – CRPMEM Normandie (KV) – CRPMEM Normandie (AV) – CNPMEM Boulogne (PB) – German Fisheries Association (MC) – National Federation of Fishermen's Organisations (NFFO) (AdB) – VisNed / Anglo – Dutch Fishing Representative; (GM) – VisNed PV) – North West Dutch Fisheries Producer Organisation D (HO) – Deep Wind Offshore and Former Norwegian FLO RH) – Scottish White Fish Producer Organisation (SWFPO) (AR) – Swedish Pelagic Federation Producer Organisation
Copies to	All attendees.
Agenda	<ol> <li>Dogger Bank South Projects (DBS)</li> <li>1. 11:45: Introductions Dogger Bank South Project Team, Precision Marine Survey Limited (PMSL) and MarineSpace.</li> <li>2. 12:00: Dogger Bank South Presentation: Introduction to the Dogger Bank South Projects (Amelia Chilcott &amp; Dan Brutto)</li> <li>3. 12:30: Discussion &amp; Questions.</li> <li>4. AoB</li> </ol>
Minutes	<ul> <li>This was a joint meeting with the Sofia Offshore Wind Farm project (SOWF). The SOWF project gave a presentation first, with the DBS section commencing at 11:45.</li> <li>At the commencement of the joint meeting NP had thanked all for attending the joint RWE (Sofia and Dogger Bank South (DBS)) Commercial Fisheries Working Group Meeting (CFWG) and provided an update on the purpose of the CFWG;</li> <li>As both the Sofia OWF and DBS projects are owned and managed by RWE and are both located on the Dogger Bank, it was decided to develop this first CFWG as a joint meeting.</li> <li>It may be that moving forward, we hold separate CFWG meetings for individual projects, depending on project developments and timelines.</li> <li>Invited all attendees to introduce themselves (all attendees and their roles / descriptions and representative groups included in attendees section above).</li> <li>Requested that to enable the delivery of the presentations in an efficient manner, that all questions are raised once the presentations are complete, and if anyone has a question, please use the 'raise hand'</li> </ul>



#### DBS Project introduction and presentation commenced at 11:45.

- **AC** Offshore Consents Manager for the DBS project. Joined the project towards the end of last year. Leading on commercial fisheries and previously worked as the offshore consents manager at the Triton Knoll Offshore Wind Farm.
- **DB** Offshore Consents Manager for the DBS project, and is supporting AC on commercial fisheries.
- **BO** Marine Consultant for MarineSpace, working closely with RWE and PMSL for the Environmental Impact Assessment (EIA) section of the DBS project.
- **AC** Gave presentation and a general overview on the DBS OWF projects, with input from **NP** and **BO** (11:48 12:08).
- **AC** The DBS project is at a very early stage.
- **AC** Likely going to be a busy couple of years in respect of data collection from offshore fisheries stakeholders, both nationally and internationally.
- **AC** Site investigations on the DBS array sites have commenced, but as we are currently working with historical site data, it possible that the parameters presented in Section 2: Project Information may change as we collect more current site information and refine the project details.
- **AC** It is unlikely that we will start any construction activities before 2026.
- **NP** Provided commercial fisheries roles and responsibilities and project descriptions. The role is fairly extensive, and these slides represent a brief summary of the key roles and responsibilities. Other roles and responsibilities will be detailed within the DBS Fisheries Liaison Plan.
- **NP** We are developing a DBS specific Fisheries Liaison Plan (FLP) and coexistence plan, but as DBS and Sofia are both RWE projects on adjacent ground, these documents are likely to be similar Sofia. This is to ensure that we and RWE are delivering the same messages.
- **AC** We recognise that we are producing the FLP quite early, but we wanted to get this in place as soon as possible. Once the export cable corridor is known, a draft will be circulated to relevant stakeholders for comment.
- **BO** Provided role description and EIA methodology.
- **BO** MarineSpace will contact individual commercial fisheries stakeholder representatives to collect any other data that may not be available from government agencies.
- **DB** Gave presentation and a general overview of site investigation programme on the DBS OWF projects (12:08 12:11).
- **AV** "I have to leave to go to another meeting, but please could you provide these slides?" (via text) **NP** responded by text that the presentations would be made available.
- **AC** Are there any queries or questions?
- **HO** The DBS projects look like they are located right on the slopes of the Dogger Bank, which is where a lot of sandeel fishers work.
- **HO** Previously, we agreed that Dogger Bank wind farms were moved to accommodate sandeel fisheries.
- **HO** I am somewhat confused by this approach, as this does not show coexistence
- **AC** The Crown Estate defined the bidding areas as part of the Round 4 leasing process and the siting of the projects has been subject to strategic environmental assessment.



- **NP** This demonstrates the importance of necessary levels of data collection that will feed into the EIA and subsequent discussions between developer and the fishing industry.
- **DB** There is some flexibility within the lease area, and it does not necessarily mean that the full extent will be utilised.
- **NP** The Forewind consortium, through consultation with the fishing industry identified key sandeel grounds, some of which were left unused and as a consequence remained open for sandeel fishing.
- **HL** This location (DBS) is on top of the most important and productive sandeel banks in the North Sea for our fishermen.
- **HL** We have recently reviewed the last 10 years' worth of data.
- **HL** I have produced a chart that will show these sandeel grounds and will provide the shapefile data to you for your consideration.
- **AC** Yes, please do share any historical fishing data you have.
- **AC** It would also be interesting to know your thoughts on turbine layouts [discussed in the earlier SOWF section]. This information and feedback is helpful for us to take into consideration and so that we can discuss as the project develops.
- **HL** I look forward to seeing that WTG's are only placed on ground where we don't catch sandeels.
- **HL** If WTG's are placed on these important sandeel grounds, it would be very painful for the Danish sandeel fishermen.
- **HL** We don't have a big sandeel quota for 2022 (5000 tonnes), but this does fluctuate over different years.
- **HL** I don't see how you can coexist with us, if you place your wind mills on these grounds. The proposed array sites cover approximately 50% of the sandeel bank.
- **NP** We will be liaising with you and your members during consultation and throughout the lifetime of the project to promote coexistence.
- **AR** I support the comments made by **HL & HO**, and it is important that you collect all necessary data from us. It is possible that coexistence cannot be achieved.
- **FM** I also support these comments.
- **FM** Some fishermen consider that it is impossible to work within array sites and between turbines as it would not be practical and too risky.
- **FM** It is possible that you would practically be closing these sites to fishermen.
- **FM** It would be best if WTG's are placed on ground where sandeel fishermen do not work. Historical fishing data should be carefully considered.
- **FM** I suggest that corridors are opened up within the array sites to allow sandeel fishermen to continue fishing safely during operation.
- **NP** It is not our intention to close turbine array sites during operation.
- **NP** We are still at an early stage, but we look forward to speaking with you and collecting more fisheries data.
- **GM** I also echo those comments mentioned previously.
- **GM** There are important sandeel and plaice fisheries within your project area and it is essential that we are involved with these discussions.
- **GM** We are willing to provide the necessary data you require.
- **NP** Thank you, yes we are of course happy to pick this up with **VisNed** as well.
- **HL** You say that you are in a very early stage, which is a good opportunity for you to secure coexistence with the fishing industry. We would like to see evidence of this at an early stage.
- **NP** We treat consultation very seriously and it is important to meet as many of you as industry representatives, your members and individual fishing vessel skippers as possible.



	HL – We need more advanced information on project activities, as some fishermen don't always read or review the information or notices that are provided to them.  NP – We recognise that just sending project information and notifications to FIR's places added pressure on you, but if there is any help or assistance we can provide, then do please let us know.  HL – If those metocean buoys you have recently deployed are located on sandeel grounds, it is possible that they will get towed away.  HL – They are not always visible from the size of fishing vessels that are operating in these areas.  HL – We need more consideration as to where these types of buoys are
	deployed and the fishing grounds in which they occupy.  NP – It is recognised that a longer term dataset from different years is important to demonstrate quota allocation. This builds a bigger picture of the fishery.  HL – Yes, particularly as the sandeel quota fluctuates yearly.
	AR – Will the EIA assess underwater noise on fish stocks and other impacts from offshore wind farm turbines?  BO – Yes, this will be considered in the fish ecology assessment which will be separate from the commercial fisheries impacts.
	NP – Are there any other queries or questions?  No queries or questions raised by attendees on the call.
	NP – Thanks to all for attending the DBS and Sofia joint CWFG meeting. NP – Both presentations will be made available and we will issue these with the meeting minutes. NP – We will contact you all individually in the near future to arrange meetings in your respective countries and undertake port visits with local fishermen. NP – Moving forward, we will maintain contact with the aim of collecting as much fisheries information and data as possible. NP – Once the FLP and coexistence plan has been drafted, we will also send this to you for your review and comments. NP – We look forward to meeting with you in person and working together. AC & DB – I echo Nigel's comments.
	Meeting ended at 12:40.
Date of next meeting	TBC
Actions	<ul> <li>PMSL – To share DBS Presentation to all attendees of the CFWG meeting.</li> <li>PMSL – Provide all FIR's with the DBS site boundary shapefiles.</li> <li>HL – Provide chart and shapefiles of historical Danish sandeel fishing grounds.</li> <li>Post meeting update, HL provided information by email on 31<sup>st</sup> March 2022.</li> </ul>

30/03/2022 4 Meeting



Meeting title	DBS – PMSL Meeting With Andy Wheeler
Location	Bridlington Harbour Cafe
Date	27 <sup>th</sup> April 2022
Originator	Nigel Proctor - PMSL
Attendees	(NP) - PMSL Managing Director / FLO r (DP) - PMSL Offshore Operations Manager / FLO (AW) — Andy Wheeler Consulting and Holderness Fishermen ve
Copies to	
Agenda	<ol> <li>DBS / PMSL (FLO) Introduction</li> <li>DBS Project Presentation</li> <li>DBS Project Update</li> <li>AoB</li> </ol>
Minutes	NP – Gave introductions and purpose of the meeting, stating that PMSL were brought on to the project as the Fisheries Liaison Office (FLO) in early December 2021.  NP – The DBS project had their first Commercial Fisheries Working Group (CFWG) with offshore national and international Fishing Industry Representatives (FIR's).  NP – As the export cable routes and landfall had not been identified, and consequently, the project was not aware which inshore fisheries stakeholders would be consulted, local fisheries organisations were not asked to join.  NP – Provided presentation on the DBS project which was largely based on that provided at the first CFWG meeting.  NP – I will also provide this presentation and the minutes for your review.  AW – Great, thank you.  NP – The advice we are giving to DBS, which they do recognise, is the most favourable option in terms of mitigating fisheries interaction would be for the cable to be located further north which is where less static gear is observed.  NP – Due to a potential survey start on the export cable route (ECR) being June 2022, we are keen to meet local FIR's at the earliest opportunity.  NP – Once we are at a certain stage and have some more confirmed information, we aim to come and speak to your members individually.  NP – We will work with you in terms of the best methods to getting information to your members.  AW – It will be best to send all information direct to me and I will forward on to my members. They don't always read it from third parties, but they will if I send it to them.  NP – We will also laminate charts with coordinates and works areas on so these can be issued to your members.  AW – Yes that will be very useful.  NP – As per the roles and responsibilities on the DBS project, we (PMSL) are the FLO and keep our responsibilities separate from the compensation and agreement side of things.  NP – Agreements will be undertaken by MEP, but we will be providing support
	NP – Agreements will be undertaken by MEP, but we will be providing support throughout the process.  AW – I have already worked with the second at MEP on the Withernsea Sea Defence project and it worked well. There was no animosity at all.



**AW** – I am looking forward to reading the EIA. Not many others read it in as much detail, but I can pull out any important points and pass these onto my members.

**NP** – In terms of the EIA and to facilitate the delivery of information required by MEP for fisheries agreements, it would be good to get a handle on where your members are fishing.

**AW** – Currently, it is a bit of a false picture as there are other works ongoing in the area, which is likely to impact displacement in your areas of works.

**NP** – It should be noted that any personal/vessel specific information we receive in terms of what will facilitate fisheries agreements will not go into the EIA or public domain and all information will remain confidential.

**NP** – As VMS only accounts for larger boats i.e. over 12 metres, we know that activity from smaller boats and the under 10 metre static gear segment are not fully accounted for in this dataset and are poorly represented. This type of information will be of significant importance when we start consultation with you and your members.

**NP** – iVMS will help us collate fisheries and fishing activity information for smaller boats, but I don't anticipate that this will be readily available for a while.

**NP** – We will also be carrying out fishing gear observation surveys within the project works area to identify fishermen operating in the DBS development site. These methods are a useful tool as a high level approach to identify fisheries stakeholders and levels of effort.

**NP** – We recognise that there are limitations to using VMS data as clearly the under 12metre boats are not fully accounted for.

**NP** – We have already done this for the array where some gear was recorded, but are due to commence these surveys along the ECR.

**AW** – That makes sense. I will also encourage my members to download their plotter readings from their plotters from the last 12 months so I will be able to provide you the necessary and current evidence. I know that it is easy for fishermen to draw lines on their plotters hence why I ask for historical readings.

**NP** – We know that some of the Holderness offshore fleet can and do work much further offshore, potentially within the DBS array sites, and this activity identified within the VMS data does not solely relate to the nomadic Hartlepool boats

**AW** – Yes I would imagine so, I would think even Ben Woolford would be out there.

**NP** – We would always prefer to have 4 months lead in time for discussions on potential impacts to fisheries as a result of site activities and to assist in attaining agreements. We recognise that on this occasion the shorter lead in time is not ideal, but unfortunately the ECR landfall decision has been delayed, which has in turn delayed the survey planning.

**NP** – We are in the process of producing a DBS Fisheries Liaison and Co-existence Plan and once finalised, we will issue this to you for your review. As we have produced these documents for other RWE projects i.e. Triton Knoll and Sofia, it is likely that they will follow a similar format.

**AW** – The main thing is communication, as long as we are provided adequate notice to plan, there shouldn't be any problems.

**AW** – It might be useful if you could provide weekly updates on progress whilst your surveys are ongoing.

**DP** – Yes we can look into this.

**NP** – DBS are looking to start their ECR surveys in June, with two separate vessels working in the nearshore out to the 10 metre depth contour and the other vessel working from the 10 metre depth contour out to the array. These



dates remain fluid due to vessel availability and changes to survey vessels working on the array. We will however keep you as up to date as possible once these mobilisation dates have been firmed up.

**NP** – We do also recognise that these mobilisation dates are around the same sort of time as to when the lobsters will turn out and have advised the project to get wrapped up inshore as early as possible.

**AW** – I think Brown & May have advised that the DBA & DBB cable installation works will be completed and vessels will be out of the whole area by the 1<sup>st</sup> July 2022 regardless of their progress, to avoid impacts to fishing during the important periods.

**NP** – DBS are aiming to reduce the buffer areas where possible so fisheries exclusion areas are also reduced.

**AW** – That is good to know, but you need to make sure that the fisheries exclusion areas remain the same from the very start throughout your surveys, and so that you do not need to come back to us for wider exclusion areas further down the line.

**NP** – We totally agree, this should be set in stone from the very start.

**NP** – As soon as we have firmer updates from the DBS team we will provide at the earliest opportunity. We also intend to set up another meeting with you in the next week or so to introduce you to MEP and so that they can present the information they require to facilitate disruption agreements.

**NP** – From this, we can arrange port visits to meet some of your members and collate further fisheries information.

AW - Yes that is no problem.

**NP** – Once the survey areas and fisheries exclusion areas have been confirmed, we will provide you with the shapefiles so these can be forwarded to your members and uploaded directly to vessel plotters.

**NP** – We will also provide you with latitude and longitudinal positions in Degrees Decimal Minutes and on a laminated chart so they can be given to fishermen and stored in their wheelhouses. Is there any other data format you require these coordinates to be in?

**AW** – If you could provide the charts and coordinates, this will be better. Not all of the data formats we are provided with are compatible with all of the vessel plotters systems.

**DP** – Yes we recognise this, and this is the type of information we will collect when we start our consultation and port visits when we meet your members.

 ${\bf AW}-{\bf Yes}$  that's fine. I can start collecting the information on plotter systems from my members in the meantime.

**DP** – Great, that will help.

**NP** – In our view, it is likely that the Bridlington boats and some Hornsea boats could be impacted by these works, but will likely discount boats from Withernsea. Can you confirm?

**AW** – Yes, there will not be boats from Withernsea working that far north, although some will say they are.

**NP** – Can you provide me a member list of which fishermen you represent and a list of those fishermen of whom you will be potentially making claims for? **AW** – Yes I will do, no problem.

**NP** – It would be good if you could provide a briefing to your members of what we have presented today so that they are fully aware of plans at DBS and that we are at an early stage of the project.

**NP** – Thank you for meeting with us today. We will continue to keep you updated with project information when this come available and will set up the next meeting with MEP over the next week or.



Date of next meeting	TBC
Actions	PMSL to provide a copy of the presentation and send a draft of the meeting minutes for review.



Meeting title	DBS – PMSL Meeting With Holderness Fishing Industry Group (HFIG) Representative)
Location	Old Harbour Masters Office, Harbour Rd, Bridlington YO15 2NR
Date	29 <sup>th</sup> April 2022
Originator	Nigel Proctor - PMSL
Attendees	NP) - PMSL Managing Director / FLO (DP) - PMSL Offshore Operations Manager / FLO (JR) - Holderness Fishing Industry Group (HFIG) - Holderness sentative
Copies to	
Agenda	<ol> <li>DBS / PMSL (FLO) Introduction</li> <li>DBS Project Presentation</li> <li>DBS Project Update</li> <li>AoB</li> </ol>
Minutes	NP – Gave introductions and purpose of the meeting, stating that PMSL were brought on to the project as the Fisheries Liaison Office (FLO) in early December 2021.
	NP – The DBS project had their first Commercial Fisheries Working Group (CFWG) with offshore national and international Fishing Industry Representatives (FIR's).  NP – As the export cable routes and landfall had not been identified, and consequently, the project was not aware which inshore fisheries stakeholders would be consulted, local fisheries organisations were not asked to join.  JR – Yes that makes sense, especially if you are still at an early stage of the project.
	NP – Although the exact location of the landfall has not been confirmed, we have been given an indication that it is likely going to be on the Holderness Coast.  JR – Yes that makes sense given the location of the array sites.
	NP – We and RWE don't want to leave consultation too late, and although we are unfortunately unable to give you firm information we are keen to get started and hence why we are visiting you today.  JR – That is often the problem, but it is good that you have started and I appreciate you visiting us today.
	NP – Provided presentation on the DBS project which was largely based on that provided at the first CFWG meeting.  NP – I will also provide this presentation and the minutes for your review.  JR – Thank you.
	NP – The advice we are giving to DBS, which they do recognise, is the most favourable option in terms of mitigating fisheries interaction would be for the cable to be located further north which is were less static gear is observed.  JR – Yes absolutely, I would agree with that.
	NP – Due to a potential survey start on the export cable route (ECR) being June 2022, we are keen to meet local FIR's at the earliest opportunity.  NP – Once we are at a certain stage and have some more confirmed information, we aim to come and speak to your members individually.  JR – Yes no problem.
	<b>NP</b> – We will work with you in terms of the best methods to getting information to your members.



- **NP** We will also laminate charts with coordinates and works areas on so these can be issued to your members.
- **NP** As per the roles and responsibilities on the DBS project, we (PMSL) are the FLO and keep our responsibilities separate from the compensation and agreement side of things.
- **JR** Yes I agree, it seems to work better that way.
- ${f NP}-{\sf PMSL}$  will be the first point of contact as the FLO on DBS and agreements will be undertaken by MEP, but we (PMSL) will be providing support throughout the process.
- **JR** I did speak with David Elliot at MEP and brokered agreements with him for the Withernsea Sea Defence project.
- **NP** In terms of the EIA and to facilitate the delivery of information required by MEP for fisheries agreements, it would be good to get a handle on where your members are fishing.
- **NP** It should be noted that any information we receive in terms of what will facilitate fisheries agreements will not go into the EIA or public domain and all information will remain confidential.
- JR There is no one out of Bridlington using mobile gear any more, I think the nearest port would be Scarborough and even then, there are only a few boats still trawling.
- **NP** As the VMS only accounts for larger boats i.e. over 12 metres, we know that activity from smaller boats and the under 10 metre static gear segment are not fully accounted for in this dataset and are poorly represented. This type of information will be of significant importance when we start consultation with you and your members.
- **NP** iVMS will help us collate fisheries and fishing activity information for smaller boats, but I don't anticipate that this will be readily available for a while and to support the initial agreements or the EIA, hence why we will be requesting further information from you and your members.
- JR Yes that is fine.
- **NP** We will also be carrying out fishing gear observation surveys within the project works area to identify fishermen operating in the DBS development site. These methods are a useful tool as a high level approach to identify fisheries stakeholders and levels of effort.
- **NP** We recognise that there are limitations to using VMS data as clearly the under 12metre boats are not fully accounted for.
- **NP** We have already done this for the array where some gear and only 4 SMB's was recorded, but are due to commence these surveys along the ECR.
- **NP** We know that some of the Holderness offshore fleet can and do work much further offshore, potentially within the DBS array sites, and this activity from current and known datasets does not solely relate to the nomadic Hartlepool boats.
- **NP** We would always prefer to have 4 months lead in time for discussions on potential impacts to fisheries as a result of site activities and to assist in attaining agreements. We recognise that on this occasion the shorter lead in time is not ideal, but unfortunately the ECR landfall decision has been delayed, which has in turn delayed the survey planning.
- **NP** Everyone within DBS is working hard to get this information finalised and over to the relevant stakeholders.
- $\mbox{\bf JR}$  Appreciate that, but I guess there is no point in discussing anything if there is nothing to discuss.



- **NP** We are in the process of producing a DBS Fisheries Liaison and Co-existence Plan and once finalised, we will issue this to you for your review. As we have produced these documents for other RWE projects i.e. Triton Knoll and Sofia, it is likely that they will follow a similar format.
- **NP** There is the potential for the closure of the Dogger Bank SAC to impact static gear outside of this area.
- **JR –** Yes that could be a problem for the bigger vessels working offshore, but shouldn't impact the inshore fleet.
- **NP** DBS are looking to start their ECR surveys in June, with two separate vessels working in the nearshore out to the 10 metre depth contour and the other vessel working from the 10 metre depth contour out to the array. These dates remain fluid due to vessel availability and changes to survey vessels working on the array. We will however keep you as up to date as possible once these mobilisation dates have been firmed up.
- **NP** We do also recognise that these mobilisation dates are around the same sort of time as to when the lobsters will turn out and have advised the project to get wrapped up inshore as early as possible.
- **JR** It is good to see a smaller boat operating in the nearshore area. This will be better for liaison between vessels offshore.
- **DP** Certainly more fit for purpose in the nearshore survey area.
- JR Yes agreed.
- **NP** As the DBS SI's have commenced on the array and two Metocean buoys have been installed I will forward these NtM's to you.
- **JR** Great, thank you.
- **NP** The survey contractor (Fugro) have had a couple of small issues with the survey vessel (Mainport Geo) which may affect the programme very slightly, but we will keep you updated on site activities.
- **NP** As soon as we have firmer updates from the DBS team we will provide at the earliest opportunity. We also intend to set up another meeting with you in the next week or so to introduce you to MEP and so that they can present the information they require to facilitate disruption agreements.
- **NP** From this, we can arrange port visits to meet some of your members and collate further fisheries information.
- **JR** Yes that's fine, you know where we are. If you could give us some additional notice I will make sure the correct vessels are available.
- **NP** DBS are aiming to reduce the buffer areas where possible so fisheries exclusion areas are also reduced.
- **NP** The project is fully aware of ensuring they request the maximum works areas from the start so they don't have to come back and request additional space.
- **NP** Once the survey areas and fisheries exclusion areas have been confirmed, we will provide you with the shapefiles so these can be forwarded to your members and uploaded directly to vessel plotters.
- **NP** We will also provide you with latitude and longitudinal positions in Degrees Decimal Minutes and on a laminated chart so they can be given to fishermen and stored in their wheelhouses. Is there any other data format you require these coordinates to be in?
- **DP** We recognise that boats use different plotter systems i.e. Max Sea / Olex and therefore we would like to try and get the data over to you in accessible format. I think most Max sea systems use GPX.

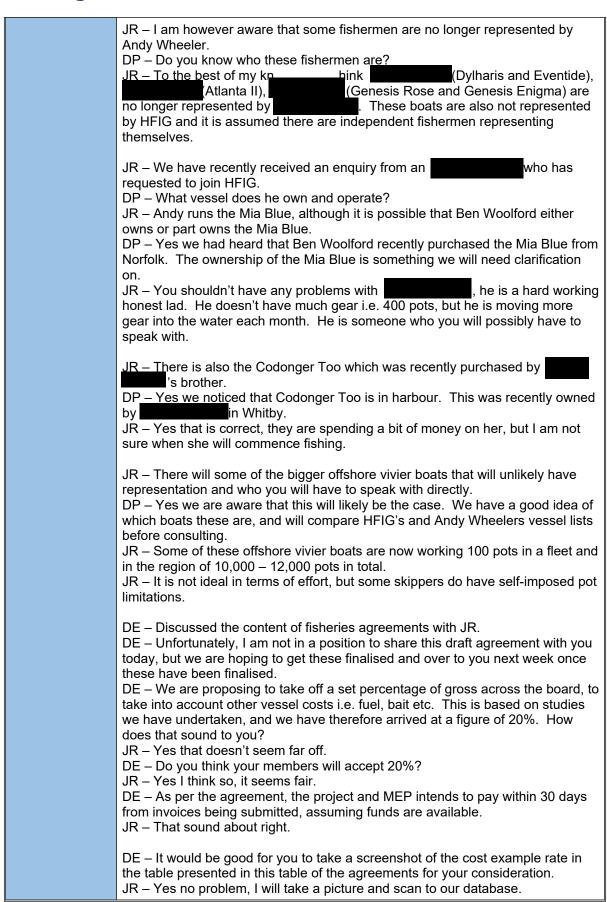


	JR – Yes that is correct, if you can provide this on a USB stick I will upload to vessels where skippers can't to do this themselves. Otherwise I will upload coordinates individually.  NP – In our view, it is likely that the Bridlington boats and some Hornsea boats could be impacted by these works, but will likely discount boats from Withernsea. Can you confirm?  JR – It is not likely that you will see Withernsea boats that far north.  NP – Can you provide me a member list of which fishermen you represent and a list of those fishermen of whom you will be potentially making claims for?  JR – Yes I will get a basic one that is stripped back over to you. It will just include vessel owner, name, PLN and home port.  NP – We have asked the same from Andy Wheeler so this will give us a good handle on those independent fishermen as well.  JR – Yes no worries, but I have heard that Andy Wheelers list is shrinking. Most of the bigger offshore boats won't have representation.  NP – It would be good if you could provide a briefing to your members of what we have presented today so that they are fully aware of plans at DBS and that we are at an early stage of the project.  JR – Yes I will get something out to them shortly.  NP – Thank you for meeting with us today. We will continue to keep you updated with project information when this come available and will set up the next meeting with MEP over the next week or.
Date of next meeting	TBC
Actions	PMSL to forward recent NtM's to JR
	PMSL to provide copy of presentation and to forward a draft copy of the meeting minutes for review.



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Thhes Meeting title	DBS – PMSL & MEP Meeting With Group (HFIG) Representative)  Holderness Fishing Industry
Location	Old Harbour Masters Office, Harbour Rd, Bridlington YO15 2NR
Date	12 <sup>th</sup> May 2022
Originator	Nigel Proctor - PMSL
Attendees	(DP) – PMSL Offshore Operations Manager / FLO (DE) – MacAlister Elliott & Partners (MEP)  JR) – Holderness Fishing Industry Group (HFIG) - Holderness Fishermen Representative
Copies to	(PMSL), RWE) and (HFIG)
Agenda	<ol> <li>DBS / PMSL / MEP / HFIG Introduction</li> <li>DBS Project Update</li> <li>DBS / MEP Fisheries Agreements Update</li> <li>AoB</li> </ol>
Minutes	Introduction between <b>DP</b> , <b>DE</b> and <b>JR</b> .
	DP – Purpose of this follow up meeting is to provide an update for information of the Site Investigations (SIs) planned for the DBS export cable route options and for MEP to share and discuss the fisheries agreements required for those Holderness Fishing Industry Group (HFIG) members who may have fishing gear within the project works areas.
	DE – How many members do you have in total, and what percentage of those do you think you will be making claims for?  JR – We have 25 members, but we won't be making claims for all our members.  DE – How many members do you think you will be claiming for?  JR – About 50%, possibly around 12 boats.  JR – It is possible that there will be some fishermen working near your cable route options, but there won't be many.  DP – Can you provide a list of these vessels and indicate which vessels you may need to make claims for?  JR – Yes I will get a basic member list over to you.
	DE – Provided a list of vessel requirements that will need to submit to MEP to facilitate and support any claims for fisheries disturbance agreements to the project. These include ID, registration docs and release forms for the MMO authorising the release of catch and position data.
	JR – The use of iVMS and AIS tracking will help us all in terms of collecting necessary fisheries evidence. JR – The only thing with AIS is that not all vessels have the correct systems installed and some don't turn it on. DE – How many HFIG members have AIS? JR – About half of our members. DP – If vessels are under 15 metres in length, they aren't legally required to turn it on.
	JR – Yes that is correct.  DE – Showed JR the MMO release form requested all members to sign. JR – I will ask our members to come into the office to sign and send to PMSL and MEP.  JR – There are a number of fishermen in Bridlington that are not members of
	HFIG, and may be represented by







Actions	
Date of next meeting	A brief further meeting was convened on May 19 <sup>th</sup> DE requested that JR send MEP a signed letter from each of the fishers he represents confirming that they are represented by HFIG. The 20% reduction from gross revenue was also discussed, due to the vast increase in fuel costs this %age may need to be increased.
	DE – Once we move to further discussions and once fisheries data has been provided and reviewed, we will be able to determine specific amounts for individual vessels.  DP – It remains our intention for surveys to commence on the southerly route option first to try and release this area first. Obviously there are no guarantees with this, but DBS are considering this as an option.  JR – It is possible that you will start seeing more gear on the northerly route in June.  JR – There are possibly some beach netter working on the southerly route option and out to the 5 metre water depth contour. You may therefore need to speak with Andrew Sanderson.  JR – Generally, there isn't much fishing activity in the very nearshore area.  JR – Most gear will start from the rock edge. From there you will probably start seeing gear from about 3 – 6nm offshore.  JR – There will be the like of Rich Pockley and Matt Emerson inshore, then most of the gear will be observed further offshore.  JR – It should also be noted that not many fishermen work inside of Bridlington Bay.



Meeting title	DBS – PMSL & MEP Meeting With Andy Wheeler (Holderness Fishing Industry Representative)
Location	Bridlington Harbour Commissioners, Gummers Wharf, West End, Bridlington YO15 3AN
Date	19 <sup>th</sup> May 2022
Originator	Nigel Proctor - PMSL
Attendees	r ( <b>DP</b> ) – PMSL Managing Director / FLO  ( <b>DP</b> ) – PMSL Offshore Operations Manager / FLO  ( <b>DE</b> ) – MacAlister Elliott & Partners (MEP)  ( <b>AW</b> ) – Andy Wheeler Fisheries Consultancy Limited - Holderness Fishermen Representative
Copies to	RWE) and
Agenda	<ol> <li>DBS / PMSL / MEP / HFIG Introduction</li> <li>DBS Project Update</li> <li>DBS / MEP Fisheries Agreements Update</li> <li>AoB</li> </ol>
Minutes	Introduction between NP, DP, DE and AW.
	NP – Purpose of this follow up meeting is to provide an update for information of the Site Investigations (SI's) planned for the DBS export cable route options and for MEP to share and discuss the fisheries agreements required for those members represented by Andy Wheeler who may have fishing gear within the project works areas.  NP – The previous meeting outlined the scope of works and we will send through the minutes and presentation from that meeting.  NP – As an additional update, our survey vessel (Precision 1) has commenced scouting of the inshore area of the DBS export cable route (ECR) options and there will be a larger vessel scouting the offshore ECR options at a later date.  NP – Once we have the finalised survey areas, we will provide these to you as soon as possible.  NP – We expect that a Notice to Mariners will come out shortly, so we will issue this to you when finalised.  DP – I also have an action to forward you NtM's previously issued for the DBS project and will send these to you with our last meeting minutes and the presentation.  DP – Currently, vessel availability will determine the mobilisation dates for each of the ECR surveys areas i.e. nearshore and offshore.
	<ul> <li>AW – Do you have an estimated date for mobilisation?</li> <li>DP – We have been given an indication of around the 9<sup>th</sup> June, but these dates remain fluid. We will however clarify once this dates becomes clearer.</li> <li>AW – If it is around the 9<sup>th</sup> June, should we work to this date?</li> <li>NP – It would be a good starting point.</li> <li>AW – Ok, we can try and work to this, I already have some of the information for some of our members, so I will start sending this through to you.</li> <li>NP – It is frustrating that these dates remain fluid, but we will get this information to you as soon as it is confirmed.</li> <li>DE – Provided a list of vessel requirements that will need to submit to MEP to facilitate and support any claims for fisheries disturbance agreements to the project. These include ID, registration docs and release forms for the MMO authorising the release of catch and position data.</li> <li>AW – Ok understood.</li> <li>DE – Showed AW the MMO release form requested all members to sign.</li> </ul>



**DE** – I will also send these documents electronically to you.

**DE** – Can you ask all of your members to provide a signed letter that confirms you are representing them and that all correspondence should go through yourself?

AW - Yes OK.

**DE** – We appreciate that time is limited to collect all of the required information / data, but if you could provide registration documents, fishing vessel licences and signed member letters as a priority, that would be great.

**AW** – Ok, understood.

**DE** – Showed the currently known survey routes of the ECR options.

**DE** – Appreciate these are bigger areas than previously anticipated, but these should be more refined later in the year.

**DE** – How many members do you have in total, and what percentage of those do you think you will be making claims for?

**AW** – I have sent you my member list, but will this be refined and I will reissue. Not all will be affected by these surveys.

**DE** – It would be useful if you provide your member list with owner's names also.

**DP** – Please can you also provide PLN's for these vessels as well. I can correlate these with the MMO vessel list database, but if vessels have recently changed ownership or there are multiple vessels with the same name, this can sometime be difficult.

AW - Yes OK, I will do.

**AW** – I have asked for historical plotter readings and will be able to correlate this with the survey areas once provided.

**AW** – We had some issues with Brown & May in respect to boats not being identified in scouting surveys, but were fishing in their works areas at other times of the year.

**DE** – Discussed the content of fisheries agreements with AW, including the terms and conditions.

**DE** – Unfortunately, I am not in a position to share this draft agreement with you today, but we are hoping to get these finalised and over to you next week once these have been finalised.

**DE** – The purpose of these agreements is to ensure that fishers are not out of pocket as a result of site activities.

**DE** – Moving forward, we need to determine appropriate rates for your members.

**DE** – In the event rates and compensation figures do not cover losses, the agreement offers the option for the company to make up the difference, assuming appropriate evidence in terms of effort of fishing is provided.

**DE** – The surveys areas of the ECR are only small and are for only a short period of time.

**DE** – We are proposing that a percentage of your member's revenue will be paid.

 ${\bf DE}$  – In addition, the agreement covers £2.00 per pot paid for every pot relocated from the survey area.

AW - Does this include moving in and out of the area?

**DE** – Just out of the area.

**AW** – Brown and May move for in and out of the area.

**DE** – We would advise stressing to members to keep their plotter systems as up to date as possible so this information can be readily accessible and provided.

**AW** – Received call from berthed at Withernsea.

(Violet Eileen) and confirmed he is now



**AW** – Have you spoken with (Atlanta II) and (Dylharis & Eventide)?

NP - Yes I have spoken to both.

**AW** – Kyle has also purchased another boat, this being the Codonger Too, but I am not sure who runs it.

**DP** – Yes we noticed that Codonger Too is in harbour. This was recently owned by in Whitby.

**AW** – You should also be aware that the Solitaire is and all records relate to his other vessel 'Beryl M'.

AW - Gusto is also being sold away from the area.

**DP** – Who owned this?

**AW** owned Gusto, but I am not sure what his new boat is called. I will find out and let you know.

**NP** – We have seen Gusto being owned my various fishermen as far south as Wells.

**DE** – How many vessels do you think will make a claim for gear relocation from the DBS ECR survey routes?

**AW** – I would imagine the majority of my members, particularly as a result of displacement from other sites and works in the wider area. Currently, there is a bit of a false picture because of this.

**AW** – We were however advised that DBA should be finished by the end of June.

**AW** – Once you provide the surveys areas, I will be able to give you a better idea of numbers.

**AW** – If they don't have the evidence then I will remove them from list of vessels claiming.

**DE** – We are proposing to take off a set percentage of gross across the board, to take into account other vessel costs i.e. fuel, bait etc. This is based on studies we have undertaken, and we have therefore arrived at a figure of 20%. We do however recognise that we may need to revise this to 25% due to increase in fuel costs. How does that sound to you? We think this is generous.

**AW** – Fuel and bait costs do eat into overall running costs, and we certainly may need to revisit this, as for some, it could be nearer to 40%.

**DE** – We can review this on a case by case basis.

**AW** – That is good, I am happy to hear that things can be reviewed. Ongoing review is one thing that Brown & May are not open to do.

**AW** – We may have to accept this proposal now, but it may not be acceptable next year if costs continue to increase.

**AW** – Hopefully the percentages won't be too far away from what is fair, they weren't before on the last project we worked on together.

**AW** – I am happy with what I have heard so far.

**DE** – Any issues always relate to the percentage amount.

**AW** – Yes that's fine, I am happy to resolve on a case by case basis.

**AW** – How does the payment schedule work? Is it 50% now and 50% upon completion?

**DE** – As per the agreement, the project will pay on a monthly basis within 30 days from invoices being submitted, assuming funds are available.

**DE** – Payments will come directly from MEP and this will include payments for £2.00 per pot on the first payment.

**AW** – Ok, understood.

**AW** – The indicative areas you have presented are fine, but don't be coming back asking for wider exclusion areas, once the agreements are in place.



	NP – Yes, we totally understand that and that is why there is a little bit of delay in getting the positional information of the survey areas over to you, so we can make certain that the contractor can work within the pre-defined areas.  NP – We also understand that asking for wider areas can be a show stopper in attaining agreements with fishermen and we have been very clear on this.  NP – Are there many netters anymore? I assume still has a salmon licence?  AW – Yes that is correct. These fishermen could impact construction if their licences are given back to them.  DE – Are these close inshore?  AW – Yes.  NP – I assume those netters that are working offshore are targeting wrecks?  AW – Yes.  NP – Our next steps should be to provide the survey areas to you, and for you (AW) to provide the required fishing vessel licences, fishing vessel registration and signed letters from your members.  AW – Yes, understood and I will start collecting the necessary vessel information.  AW – Everything you have said seems fair and reasonable, but the available footprint in this area is certainly getting smaller.
Date of next meeting	TBC
Actions	<ul> <li>PMSL to provide finalised survey areas.</li> <li>AW to provide a signed letter from each of the fishers he represents confirming that they are represented by AW.</li> <li>To review the 20% reduction from gross revenue following further discussion with AW members due to increases in fuel costs.</li> </ul>



Meeting title	RWE - DBS Commercial Fisheries Working Group
Location	Teams Meeting
Date	06 <sup>th</sup> January 2023 – 10:00 (GMT)
Originator	Nigel Proctor - PMSL
Attendees	(AC) – DBS Offshore Consents Manager  (HP) – DBS Graduate Consents Intern  M) – DBS Senior Geophysicist  (NC) – Geotechnical Engineer  (NP) – PMSL Managing Director / FLO  (PD) – PMSL Offshore Operations Manager / FLO  (RJ) – MarineSpace Commercial Fisheries EIA Lead  (AS) – Economic Assessment Specialist  (PB) – German Fisheries Association  (MC) – National Federation of Fishermen's Organisations (NFFO)  (AdB) – VisNed / Anglo – Dutch Fishing Representative;  PV) – North West Dutch Fisheries Producer Organisation  (RH) – Scottish White Fish Producer Organisation (SWFPO)  (AW) – Independent Fisheries Consultant (Holderness Fishing Industry Representative)  (JR) – Managing Director of Holderness Fishing Industry  Group (HFIG) Holderness Fishing Industry Representative  (NR) – Independent Bridlington Fishermen (Managing Director of Genesis Fishing)
	(SM) – Rederscentrale (Belgian Fisheries)  (HL) – Danish Fishing Association  (JJL) - Danish Fishing Association  a (AV) – CNPMEM Boulogne  (GM) – VisNed  (AR) – Swedish Pelagic Federation Producer Organisation  (MS) – Swedish Pelagic Federation Producer Organisation  (DJB) – VisNed  (MM) - Scottish Fishermen's Federation  (JS) - Scottish Fishermen's Federation  (DC) - CNPMEM  (JH) - South West Fish Producer Organisation
Copies to	All attendees.
Agenda	<ol> <li>Dogger Bank South Projects (DBS)</li> <li>10:00: Introductions Dogger Bank South Project Team, Precision Marine Survey Limited (PMSL) and MarineSpace.</li> <li>10:15: Dogger Bank South Presentation: Introduction to and update on the Dogger Bank South Projects (Amelia Chilcott)</li> <li>10:30: DBS Commercial Fisheries Overview (Nigel Proctor)</li> <li>10:40: DBS Offshore Survey Works Overview (Joe Morris, Amelia Chilcott and Nick Christopher)</li> <li>10:55: MarineSpace EIA Update</li> <li>11:05: Next Steps, Discussion &amp; Questions.</li> <li>AoB</li> </ol>



#### **Minutes**

At the commencement of the meeting **NP** thanked all for attending the Dogger Bank South (DBS) Commercial Fisheries Working Group Meeting (CFWG) and provided an update on the purpose of the CFWG:

- NP Invited all attendees to introduce themselves and who they are representing (all attendees and their roles / descriptions and representative groups included in attendees section above). Additional notes taken are as follows;
  - JR (HFIG): Holderness Fishing Industry Representative for 35 Commercial Fishermen;
  - PB: Generally represents all German fishermen operating in the North Sea, and also has responsibilities with aquaculture. Considers there are not so many German issues in the area of the Dogger Bank but is interested to know how problems are handled on this level.
  - AdB: Represents Dutch fisheries and also members of the Anglo-Dutch sector. These fishermen have historically been fishing on the Dogger Bank for many years, but are no longer able to now that the area is closed for bottom contacting trawl gear.
  - PV: Assisting with representation of some fishermen operating from the North of the Netherlands, but with a large scale decommissioning scheme currently being undertaken in the Netherlands, there is now limited Dutch activity in the area. PV pleased that ADB has joined this meeting. Also pleased to see MEP working on the DBS projects having worked with them previously as far back as 1993.
  - NR: Owns and operates two Bridlington based potting vessels (Genesis Rose and Genesis Enigma) that fish on or around the Dogger Bank.
  - RH: Working predominantly within the offshore renewable sector.
  - NP said that MC was engaged on another call but would join when able to do so.
  - NP explained that a number of other invitees have made their apologies for not being able to join the meeting due to illness or other commitments.
- **NP** requested that in the event attendees wish to ask a question or make a comment during the presentation, please raise a hand or notify using the 'raise hand' emoji.

#### DBS Project Team introduction and presentation commenced at 10:15.

- **AC** Gave presentation and a general overview on the DBS OWF projects. These meeting minutes should be read in conjunction with the presentation slides as information is not repeated.
- **AC** Following extensive consultation and confirmation from National Grid of the onshore grid connection point, RWE have been able to further refine the DBS export cable routes (ECRs) within the original study area as shown in slide 10, with the ECR landfall point located around Skipsea.
- **AC** There is a potential requirement for platform(s) located approximately half way along the export cable route between the landfall and the array.
- **AC** In respect to the development timeline, those items included with a tick have already happened (slide 13).
- **AC** It is the projects' intention for the Preliminary Environmental Impact Report (PEIR) to be submitted in Spring 2023, with a statutory consultation period following in Summer 2023. Feedback from this consultation will be used in the drafting of the Environmental Statement (ES), which is planned to be submitted in Spring 2024.



**AC** – The later dates in the programme are more uncertain, but the earliest we expect a consent decision from The Planning Inspectorate is Spring 2025, with the earliest construction in 2026.

#### PMSL Commercial Fisheries slides commenced at 10:30

**NP** – Provided commercial fisheries roles and responsibilities and project descriptions of the three key partners associated to commercial fisheries on the DBS project (slide 15). These slides represent a brief summary of the key roles and responsibilities, with other roles and responsibilities to be detailed within the DBS Fisheries Liaison Plan (FLP).

**NP** – As DBS and Sofia are both RWE projects within the same region, we will be working closely with Sofia to ensure both FLP and coexistence plans are consistent.

NP – As some of you will know, last year PMSL commenced port visits with key FIR's and commercial fishermen to gather information to assess fully how DBS may impact commercial fishing activities. There are however some data gaps, and we would like to try and meet and speak with everybody to attain a full picture of fishing effort from all commercial fleet segments. It is therefore important for both the project and commercial fisheries stakeholders to arrange meetings with those FIRs / fishermen that we have not yet been able to meet. We will be in touch to try and facilitate this.

NP - Provided role description of MEP.

**NP** – Provided overview of responsibilities of MarineSpace which **RJ** will move into later in the presentation.

#### DBS Offshore Survey Works slides commenced at 10:40

**JM** – Gave presentation and a general overview of offshore works planned for 2023.

**JM** – The plan is to remove the metocean buoys currently located with the DBS array sites this year, but plans and dates for this are still to be confirmed (slide 21).

**AC** – The Karima is due to mobilise later this month to conduct a vessel traffic survey within the green area highlighted on the chart (slide 23). The purpose of this survey is to record the vessel activity in the area of the potential platform(s) half way along the export cable route.

**JM** – RWE are planning to undertake a seismic refraction survey in the near shore area of the DBS export cable route, with the purpose being to collect data on the underlying geology and soil types. Three single survey lines will be chosen and therefore the survey will not cover a wide area. The survey will be carried out by two small vessels; a small rib that will carrier the streamer, the second larger vessel (also known as the operations vessel) will carry the source which will be moved to different intervals along the section as depicted in slide 24.

**NC** – Provided an overview of geotechnical survey, with sample locations planned along the export cable route only. It is anticipated that there will be a mixture of vessels utilised, most likely with a jack-up used in the nearshore area collecting the deeper boreholes and a dynamically positioned vessel operating further offshore.

**NP** – Are there any queries or questions?

**AW** – You said that there will be a vessel traffic survey being undertaken later this month, are there any plans to conduct the same survey later in the year to ensure other vessels active in the area are recorded at different times of the year?



- **AC** Yes, the DBS project is following the Maritime and Coastguard Agency (MCA) guidelines to feed into the Environmental Impact Assessment. In line with these, a summer vessel traffic survey will also be conducted.
- **AW** Thank you, all understood.
- **RH** In respect to the possible installation of a platform along the export cable route, will this be a booster, and will fishermen have the opportunity to give their input into its location, in the event its proposed location is sited on important fishing grounds?
- AC The requirement for platform(s) along the ECR has not yet been confirmed. The requirement for a platform in this area will be largely due to whether the project uses HVDC cables or HVAC and it is possible that the project wont need one. The Karima will be surveying a 20km stretch as indicated in green on the earlier chart (slide 23), and the project can be flexible with the location of the platform within this area. Many variables such as ground conditions, fishing activity and effort, benthic data etc. will be taken into account with regard to the final location of the platform(s), if needed.
- **NP** It is for reasons such as this as to why it is important that we acquire all relevant information on fishing activity and effort. This feeds in so that we can make well informed and educated decisions on the locations of offshore infrastructure.
- **PB** Thank you for the overview, but I wondered whether there would be the opportunity for fishing vessels to be used as survey / guard vessels?
- **NP** We have used registered fishing vessels on RWE projects for survey and guard vessels and or current / retired fishermen and will continue to promote this, assuming they adhere to the correct health and safety policies and legislation.
- **RJ** The use of fishing vessels is also included as a potential mitigation in the PEIR.

#### MarineSpace EIA Update slides commenced at 10:55

- **RJ** We are currently drafting the DBS commercial fisheries technical report which will feed into the EIA.
- ${f RJ}$  The study area depicted in this slide (slide 28) is based on ICES rectangle data from the last 10 years.
- **RJ** It remains unclear as to whether semi-pelagic trawling will be allowed within the Dogger Bank Marine Protected Area (MPA).
- ${f RJ}$  As mentioned by  ${f NP}$ , we are looking at many data sources to inform the EIA including receptor groups and potential impacts from Brexit.
- **RJ** We hope to receive comments on the PEIR from commercial fisheries stakeholders such as those attending today's CFWG meeting.
- **RJ** We appreciate that some of the data presented in such reports is not always accurate, which is why meetings such as this CFWG are so important.

#### **Next Steps**

- **AC** If you haven't already completed a fisheries stakeholder questionnaire, either as part of a port visit or via e-mail, we would be grateful if you could provide feedback as soon as possible so that we can use all necessary fisheries information in our assessments.
- **AC** We are finalising a draft of our fisheries liaison and coexistence plan and will circulate shortly for comment.
- **AC** We plan to arrange the next CFWG meeting after the submission of PEIR later this summer to allow us to gather feedback from the fishing industry, for including in future submissions.
- **NP** Are there any other queries or questions?



	AW – The key point really is as Nigel says, early communication and engagement. I don't even mind receiving an email every Friday afternoon saying that there is nothing to inform me.  NP – We acknowledge this, early engagement is key to ensure everyone knows what is happening and what is expected of them and we will continue to provide the necessary information, even if it is just a call.  PB – In respect to timelines and plans for the project, we have seen in Germany that for certain projects in the area, they want to try and speed up the development of projects, for example dropping the EIA, do you foresee this happening with DBS or other UK developments?  AC – We are aware of discussions happening within the UK government to try and speed up the consents process, but we are not anticipating any major changes to the DBS projects' DCO application which is expected to be submitted in 2024.  NP – Are there any other queries or questions?  No further queries or questions raised by attendees at this CFWG meeting.  NP – Thanks to all for attending the second DBS CWFG meeting.  NP – The presentation will be made available and we will issue this with the draft meeting minutes for comment.  NP – As there are some data gaps, it is important that we collate as much robust fisheries data as possible so that we can represent all member states and fleet segments to feed this information into the EIA.  NP – For those that we have not yet been able to visit, or we have not yet acquired the relevant fisheries data from, we will contact you individually in the near future to arrange meetings in your respective countries and undertake port visits with local fishermen.  NP – ADB, PV & PB, I will contact you all separately to determine suitable dates where we can come and visit you.  NP – Moving forward, we will maintain contact with the aim of collecting as much fisheries information and data as possible and will make a commitment to speak as early as possible to continue to build and maintain good working relationships.  NP – O
Date of next meeting	TBC
Actions	PMSL – To share DBS Presentation and meeting minutes to all attendees of the CFWG meeting.  PMSL – To circulate FLP and coexistence plan to all attendees of the CFWG meeting once drafted.  PMSL – To make contact with FIRs for whom port visits have not yet been undertaken with.  PMSL – To acquire fisheries information / data from FIRs for which there are important data gaps.  RWE & PMSL – Arrange next CFWG meeting following submission of PEIR.



Meeting title	RWE - DBS Commercial Fisheries Working Group
Location	Teams Meeting
Date	11 <sup>th</sup> July 2023 – 10:00 (GMT)
Originator	Nigel Proctor - PMSL
Attendees	(AC) – DBS Offshore Consents Manager (LL) – RWE Offshore Consents Manager - Fisheries (NP) – PMSL Managing Director / FLO DP) – PMSL Offshore Operations Manager / FLO BO) – MarineSpace Commercial Fisheries EIA (JD) – MarineSpace Commercial Fisheries EIA (AS) – Economic Assessment Specialist (AW) – Independent Fisheries Consultant (Holderness Fishing Industry Representative) (DW) – Independent Bridlington Fishing Vessel Owner (Nordstiernen) (DvT)- Representative of Dutch Fishermen (CU) – German Fisheries Association HO) – Representative of the Norwegian Fishermen's Association (MFH) - Scottish Fishermen's Federation – Policy Officer
Apologies	M) – Rederscentrale (Belgian Fisheries)  M) – Rederscentrale (Belgian Fisheries)  FM) - Danish Fishermen's PO  (HL) – Danish Fishing Association  JJL) - Danish Fishing Association  (KV) - CRPMEM – Normandie  (CD) - CRPMEM – Normandie  (RP) – German Fisheries Association  (NR) – Independent Bridlington Fishermen (Managing Director of Genesis Fishing)  (KF) – Independent Bridlington Fishermen (Dylharis & Eventide)  (RP) – Independent Bridlington Fishermen (Dylharis & Eventide)  (RP) – Independent Bridlington Fishermen (Nordstjernen)  (RP) – Independent Bridlington Fishermen (Nordstjernen)  (FP) – Independent Skipsea Intertidal Netter  PV) – North West Dutch Fisheries Producer Organisation  (GM) – VisNed  dB) – VisNed / Anglo – Dutch Fishing Representative;  (DjB) – Vissersbond  (BS) – Vissersbond  (DV) – Vissersbond  (MC) – National Federation of Fishermen's Organisations (NFFO)  (MR) – National Federation of Fishermen's Organisations (NFFO)  s (DM) – North Eastern Inshore Fisheries & Conservation  Authority (NEIFCA)  (JR) – Managing Director of Holderness Fishing Industry  Group (HFIG) Holderness Fishing Industry Representative



	ie (JD) – Sunbeam Fishing (JDs) – Sunbeam Fishing
	e ( <b>JD</b> ) – Sunbeam Fishing
	(MM) - Scottish Fishermen's Federation
	JS) - Scottish Fishermen's Federation
	AT) - Scottish Fishermen's Federation
	<b>RH</b> ) – Scottish White Fish Producer Organisation (SWFPO)
	MS) – Swedish Pelagic Federation Producer Organisation
	(AR) – Swedish Pelagic Federation Producer Organisation
	(AP) – Swedish Pelagic Federation Producer Organisation
Copies to	All attendees.
Agenda	Dogger Bank South Projects (DBS)  1. 10:00: Introductions Dogger Bank South Project Team, Precision Marine
	Survey Limited (PMSL) and MarineSpace.
	2. 10:15: Dogger Bank South Presentation: Introduction to and update on
	the Dogger Bank South Projects ( 1997)
	<ul><li>3. 10:20: DBS Offshore Survey Works Overview (</li><li>4. 10:30: MarineSpace EIA Update</li></ul>
	5. 11:15: Next Steps, Discussion & Questions.
	<b>6.</b> AoB
Minutes	At the commencement of the meeting <b>NP</b> thanked all for attending the Dogger
	Bank South (DBS) Commercial Fisheries Working Group Meeting (CFWG) and provided an update on the purpose of the CFWG;
	provided an apacte on the purpose of the Cr WG,
	Meeting started at 10:05 once those who had confirmed their attendance had
	joined the meeting.
	NP - Invited all attendees to introduce themselves and who they are
	representing (all attendees and their roles / descriptions and representative
	groups included in attendees section above).
	NP – Welcomed questions from attendees and stated that these should be
	raised during the presentations, rather than after the sessions. The raised hand emoji should be used for question notification.
	emoji should be used for question notification.
	AC – Presented DBS project information slides (10:13).
	AC – The main focus of todays meeting is to discuss the consultation and
	feedback provided from the fisheries PEIR chapter.
	AC – Based on these timelines, the earliest DBS will likely go in to construction,
	based on a best case scenario will be 2026 for onshore, with offshore
	construction expected the following year.
	AC – Please note that any further responses to PEIR will be required by the 17 <sup>th</sup>
	July 2023, as this will be closure date, but we are happy to try and answer any
	queries today, if any of the attendees have any.
	AC – We have included within this slide (Slide 10), links to PEIR information
	where you can submit feedback if you chose to do so.
	AC – We have just finished the most recent Vessel Traffic Survey of the area
	shown on the chart in slide and therefore concludes the winter and summer
	campaigns. Currently, there are no further VTS surveys planned, but the results
	collected during the surveys will go into finalising potential platforms and refining those areas (Slide 12).
	tilose areas (Olide 12).



- **AC** The most recent Notice to Mariners (NtM) has been circulated for ongoing surveys and has also been updated on Kingfisher (Slide 13).
- **AC** The nearshore seismic fraction survey contractor pulled out, and therefore these surveys may be pushed back to 2024. We are aiming to try and align this survey with other surveys to try and minimise disruption to fishers. We will try and keep everyone up to date on these plans, but these details are not currently known (Slide 15).
- AW When will the Voe Vanguard be finished on site?
- **AC** The Voe Vanguard is expected back on site on Thursday (13<sup>th</sup> July 2023), weather depending and they have approximately two weeks worth of work left on site.
- AW Thank you.
- **MFH** Will the array cables and export cables be trenched and buried? **AC** The intention is to reach 100% burial where possible. Last year was our first survey on site, and from this data we will be able to better understand how this may be achieved, but it is not always possible to reach 100% burial. There may be areas where some cable protection will be required.
- AC Finished DBS slides at 10:30
- **BO** Presented MarineSpace PEIR slides at 10:30.
- **BO** Thanks to all for attending, and if there are questions or comments these are welcomed.
- **BO** There are no comprehensive datasets available for all fisheries, so we have used multiple datasets that are available from a wide range of sources.
- **BO** For the purpose of this assessment, we have always assumed the worst case scenario of impacts to fishing to try and understand what additional mitigation is required. These have been included in the individual receptor groups.
- **AW** Is this going to be updated on a regular basis? For instance, there are experimental fishing methods being tested at the moment i.e. potting for scallops.
- **BO** Yes, this can be updated and included within the Environmental Statement (ES).
- **BO** Finished segment of slides at 10:43.
- **JD** Resumed MarineSpace slides at 10:43.
- $\mbox{\bf JD}$  If there are any comments on any of these receptor groups, please raise your hand.
- **AW** In respect of the Environmental Impact Assessment (EIA), is there a section or rationale as to how you have come up with this assessment (Slide 23)? I would think it would be higher than minor for static gear fisheries both offshore and inshore.
- **AW** Other issues should be considered i.e. other projects / developments, affects from BREXIT, and I think this has been underestimated.
- **JD** This is largely due to inshore fishers having a lower working range as opposed to offshore fishers.

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- **JD** The VMS data shows the offshore fishers have a significantly larger working range, and therefore returns a considerably lower sensitivity.
- **LL** The relevant information will be included in the PEIR chapters and we would suggest reviewing this and then provide any feedback you may have.
- **HO** The Danes have reported that it would not be possible to fish for sandeels or use pelagic trawls where these wind farms are located.
- **JD** The main reason is that sandeel are highly mobile species and move throughout the wider area depending on the different seasons, vessels therefore have an increased operational range.
- **BO** I would be interested to know how the Dogger Bank SAC has affected the sandeel vessels?
- **HO** You would have to ask the Danes as the Norwegians no longer fish on the Dogger Bank due to lack of agreement with the UK, but I don't think the English target sandeels on the Dogger Bank either.
- **BO** Sandeels are not targeted on the Dogger Bank since the introduction of the Dogger Bank SAC.
- **MS** We are not allowed to fish on the Dogger Bank any more since the SAC, but the wind farm area isn't the issue any more, it's the SAC.
- $\ensuremath{\mathbf{BO}}$  Do the sandeel fishermen fish to the west of the DBS array site / Dogger Bank SAC?
- **MS** This is dependent on quota.
- **MS** It should also be noted that sandeels are not adaptable, they are usually targeted between May and June.
- **HO** To add, sandeels don't generally move. They stay in the same area and when mature, they will drift with the current.
- **JD** Predominantly relates to Scottish and English vessels (Slide 24).
- **JD** \*\*Question to the SFF What is your maximum working range, is this activity limited to DBS or are there other wider areas targeted?
- **MFH** I don't have the answer right now but can provide some detail later on once I have spoken to the association.
- **JD** \*\*Question (Slide 25) Are you considering any vessel/gear adaptations to target species within the SAC?
- ${f NP}$  This would probably be best suited to the offshore fishers as raised by  ${f AW}$  earlier in respect of potting for scallops.
- **JD** Are there any further questions? No questions raised.
- JD \*\*Question (Slide 26) What pelagic species are targeted to the west of the array area / over the export cable corridor?
- **BO** We are collecting other international fisheries data, and have received Swedish data thus far.
- **NP** Does **MS** have any additional comments to this?
- **MS** I am pretty sure vessels are targeting Herring in this area, but I will need to check with our members.
- JD Any further comments or questions. No questions raised.
- **JD** \*\*Question (Slide 27) Are there any other additional mitigation measures which you would like us to consider?
- **AW** I wont answer the question at the moment, but I will read the PEIR chapters and then provide any feedback or queries I have.
- JD Any further comments or questions. No questions raised.
- $\ensuremath{\mathbf{NP}}$  Thank you all for your feedback, we will pick any outstanding action up in due course.



	MarineSpace slides finished at 11:13.				
NP – Thank you for all attending today, we will PDF these slides and today with links to consultation and PEIR chapters.  AC – Please do submit your responses and it would be good to collect before the 17 <sup>th</sup> July 2023.					
	AC – Is there any other business? Nothing further to add by any of the attendees.				
	<b>NP</b> – I would just like to reiterate the importance of consultation and you as fisheries stakeholders providing feedback on the DBS project. We value your views and will respond to any queries at the earliest opportunity.				
	Meeting ended at 11:30.				
Date of next meeting	TBC				
Actions	PMSL – To share DBS Presentation and meeting minutes to all attendees of the CFWG meeting.  MFH – To provide clarity on SFF fishing vessel activity as outlined in (Slide 24).  PMSL to discuss with offshore fishers potential adaptations to gear to fishing inside the SAC i.e. potting for scallops (Slide 25).  MS to enquire with members as to what pelagic species are being targeted to the west of the array area / over the export cable corridor.  RWE & PMSL – Arrange next CFWG meeting.				

11/07/2023 Meeting



Meeting

# **Meeting Minutes Form**

Meeting title	RWE - DBS Commercial Fisheries Working Group			
Location	Teams Meeting			
Date	22 <sup>nd</sup> November 2023 – 10:00 (GMT)			
Originator	Nigel Proctor - PMSL			
Attendees	(AC) – DBS Offshore Consents Manager  LL) – RWE Offshore Consents Manager – Fisheries  (HP) - DBS Consents Manager  (DB) - DBS Offshore Consents Manager  JM) – DBS Senior Geophysicist  (NP) – PMSL Managing Director / FLO  (DP) – PMSL Offshore Operations Manager / FLO  (JD) – MarineSpace Commercial Fisheries EIA  (GLS) – MarineSpace Commercial Fisheries EIA  (RF) – RHDHV Commercial Fisheries EIA  (HO) – Norway  (DC) – CRPMEM - Boulogne sur Mer  (GM) – VisNed			
Apologies	P) – DBS Geotechnical Engineer (RJ) – MarineSpace Commercial Fisheries EIA Lead (TM) – MarineSpace Commercial Fisheries EIA Lead (CC) – RHDHV Commercial Fisheries EIA  AS) – Economic Assessment Specialist (JV) – Rederscentrale (Belgian Fisheries) (SM) – Rederscentrale (Belgian Fisheries)  Dn (KV) - CRPMEM – Normandie al (CD) - CRPMEM – Normandie (MR) - CRPMEM – Normandie (BS) – Vissersbond (DV) – Vissersbond (PV) – North West Dutch Fisheries Producer Organisation (AdB) – VisNed / Anglo – Dutch Fishing Representative (FM) - Danish Fishermen's PO d (HL) – Danish Fishing Association (MS) – Swedish Pelagic Federation Producer Organisation (AR) – Swedish Pelagic Federation Producer Organisation (AP) – Swedish Pelagic Federation Producer Organisation (BP) – German Fisheries Association (KD) – German Fisheries Association (RH) – Scottish White Fish Producer Association (SWFPA)  MP) – Scottish White Fish Producer Association (SWFPA)  AI) - Scottish Fishermen's Federation JD) – Sunbeam Fishing (JDs) – Sunbeam Fishing ie (JD) – Sunbeam Fishing ie (JD) – Sunbeam Fishing in (MC) – National Federation of Fishermen's Organisations (NFFO)  1 (MR) – Independent Fisheries Consultant (Holderness Fishing Industry Representative)  (BW) – Independent Bridlington Fishermen (Dylharis & Eventide)			

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	(RP) – Independent Bridlington Fishermen (Orcat) NR) – Independent Bridlington Fishermen (Managing Director of Genesis Fishing)  (MC) – Independent Hornsea Fishermen (Carol Ann) (PS) – Independent Bridlington Fishermen (Onward Star) (FP) – Independent Skipsea Intertidal Netter (DM) – North Eastern Inshore Fisheries & Conservation Authority (NEIFCA)
Copies to	All attendees.
Agenda	<ol> <li>Dogger Bank South Projects (DBS)</li> <li>1. 10:00: Introductions Dogger Bank South Project Team, Precision Marine Survey Limited (PMSL) and MarineSpace (NP)</li> <li>2. 10:10: Dogger Bank South Presentation: Project Update         <ul> <li>a. Indicative Programme (HP)</li> <li>b. Project Refinement (HP)</li> <li>c. 2024 Planned Survey Activities (JM)</li> </ul> </li> <li>3. 10:20: MarineSpace EIA Updates (JD &amp; GLS)</li></ol>
Minutes	At the commencement of the meeting <b>NP</b> thanked all for attending the Dogger Bank South (DBS) Commercial Fisheries Working Group Meeting (CFWG) and provided an update on the purpose of the CFWG;  Meeting started at 10:05 once those who had confirmed their attendance had joined the meeting. <b>NP</b> – Invited all attendees to introduce themselves and who they are representing (all attendees and their roles / descriptions and representative groups included in attendees section above). <b>GM</b> – Represents the Dutch bottom trawling fleet, but as the UK has banned us from fishing in this region our fleet is not so big as it used to be and impacts are no longer so great. <b>HO</b> – Represents himself and due to having an extensive background in fisheries he is an advisor for Norwegian companies. <b>NP</b> – Welcomed questions from attendees and stated that these should be raised during the presentations, rather than after the sessions. The raised hand emoji should be used for question notification. <b>HP</b> – Presented DBS project update slides (10:10). <b>HP</b> – The main changes to Project infrastructure are refinement of the DBS array and ECR options shown in the slide pack (Slide 10). Data collected from static fishing gear scouting surveys has been used to inform the boundary refinements, with overlap with areas identified as having high intensity fishing activity reduced. <b>JM</b> – Presented DBS 2024 Planned Survey Activities Slides (10:15), including geophysical, geotechnical and seismic refraction survey plans.

22/11/2023 Meeting





# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

**Appendix F3 - MMO Regular Meeting Minutes** 

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 

Unrestricted



Company:  RWE Renewables UK  Dogger Bank South (West)  Limited and RWE  Renewables UK Dogger  Bank South (East) Limited		Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F3 - MMO Regular Meeting Minutes		eeting Minutes
Document Number:	005028805-02	Contractor Reference Number:	N/A

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Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE

### Unrestricted



### Dogger Bank South Offshore Wind Farms

Meeting Title	Meeting Date	Consultees
MMO Regular Meeting	16th December 2021	MMO
MMO Regular Meeting	16th February 2022	ММО
MMO Regular Meeting	21st April 2022	ММО
MMO Regular Meeting	21st June 2022	ММО
MMO Regular Meeting	1st September 2022	ММО
MMO Regular Meeting	20th October 2022	MMO
MMO Regular Meeting	7th December 2022	ММО
MMO Regular Meeting	15th February 2023	ммо
MMO Regular Meeting	19th April 2023	ММО
MMO Regular Meeting	24th May 2023	ММО
MMO Regular Meeting	21st June 2023	ММО
MMO Regular Meeting	23rd August 2023	ММО
MMO Regular Meeting	9th October 2023	MMO
January 2024 Meeting	17th January 2024	n/a

Unrestricted 005028805

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		DOGGEI	R BANK SOUTH PROJECTS		
		MM	O REGULAR MEETING		
Meetir	Meeting with: Marine Management Organisation				
Location: Online					
Start T	ime of Meeting:	15:00	Date of Meeting: 16/12/21		
	Attendees	Initials	Role & Organisatio	n	
		AC	Offshore Consents Manager, DBS		
		DB	Offshore Consents Manager, DBS		
		JS	Marine Licensing Case Manager, MMO		
		КВ	Marine Licensing Case Officer, MMO		
Apolog	gies				
		PC	Senior Consents Manager, DBS		
Meetir	ng Objective(s):	• Int	roduction to the DBS Projects		
	T		t regular update meeting		
Item			Description		Presenter
1	Introductions				All
	<ul> <li>Introductions</li> </ul>				
	Agenda for the session	n presented at	slide 2.		
2	Project Information				AC
	Project background  AC provided an introduction to RWE, the company's offshore portfolio and ambitions for the future.  Detail and background on the two DBS projects was provided.  Current status				
	, , ,		ted 08/11/21 and the Scoping Opinion is due for the Round 4 projects is ongoing and due to	-	
	Site selection work continues for offshore cable corridor and landfall locations. Three broad landfall areas are under consideration, pending connection location confirmation from National Grid. RWE are developing routing options for all three in parallel, with work due to conclude in early 2022, ahead of a steer from National Grid relating to the grid connection option(s).				
	Indicative programme				
	As outlined on slide 10, following Scoping, the Preliminary Environmental Information Report (PEIR) is to be submitted by Jan 2023, with the Environmental Statement (ES) completion and Development Consent Order (DCO) application submission targeted for Nov 2023. The earliest operational date is scheduled to be 2028, but could be as late as 2032.				



3	<ul> <li>Metocean buoys – Marine Licence awarded 02/12/21 for two metocean buoys (plus guard buoys) to be situated in the DBS array sites. Aiming for deployment early 2022.</li> <li>Geophysical and benthic survey campaign - scheduled to commence Mar 2022. Geotech survey may be undertaken in 2023.</li> <li>Current Priorities</li> <li>DB outlined the current priorities for the DBS projects as follows:</li> </ul>	DB
	<ul> <li>Survey planning – discussed in more detail under Section 4</li> <li>Metocean buoy deployment and conditions discharge – AC, DB and CMc to be added to MCMS Case in order to manage returns for pre-mobilisation Conditions.         Action: AC to e-mail JS to confirm which MCMS accounts require access to the general DBS Enquiry and the Metocean Buoy MLA. Post-meeting note: Action complete and MCMS access granted.     </li> <li>Scoping Opinion – due from PINS 21<sup>st</sup> Dec. To discuss key outcomes at next meeting.</li> <li>Site selection/cable routing work – DBS working to refine potential offshore cable corridors as much as possible through review of environmental and engineering constraints. To complete in advance of 2022 survey campaign. Awaiting further steer / confirmation from National Grid with regard to onshore connection location to inform further refinement.</li> <li>ETG meetings – Pre-scoping ETG meetings held. Next round to be scheduled in the New Year to present Post-Scoping and site selection updates.</li> </ul>	
4	Survey Plans	DB
	Procurement is ongoing for the 2022 site investigation surveys. Aiming to award end of this year/early next year, with a target mobilisation date of March 2022.  Surveys will include 2D/3D UHRS, side-scan sonar (SSS), multibeam bathymetry (MBES), magnetometry, sub-bottom profiling and benthic and epibenthic sampling. Potential for some geotech survey into 2023.	
	The geophysical survey will commence first, with the benthic scope programmed to start around Sept 2022. The Terms of Reference for these surveys are currently in draft outlining the rationale for sampling locations (indicative stations to be presented, with option to microsite as the survey progresses) and will be presented for discussion / agreement with the MMO in due course. Potential for a joint meeting with Natural England and Cefas to discuss in the New Year.  With regard to permissions, DBS submitted an interim voluntary notification at the beginning of October 2021 with broad parameters. This will be updated to include more detail and re-submitted alongside an EPS risk assessment shortly after Christmas.	
5	2022. The Terms of Reference for these surveys are currently in draft outlining the rationale for sampling locations (indicative stations to be presented, with option to microsite as the survey progresses) and will be presented for discussion / agreement with the MMO in due course. Potential for a joint meeting with Natural England and Cefas to discuss in the New Year.  With regard to permissions, DBS submitted an interim voluntary notification at the beginning of October 2021 with broad parameters. This will be updated to include more detail and re-submitted	AC



	DBS – AC and DB	
	DB has already issued recurring meeting invite. Currently every other month, but to review as project progresses.	
	Suggested agenda (slide 18) agreed for next meeting. To be amended as required for subsequent meetings.	
	AC raised that PO number provided on MCMS will need to be checked once access has been granted.	
6	АоВ	All
	DB raised Cefas involvement in future ETGs – have not engaged to date. JS confirmed that this would be best managed through the MMO, with the DBS Enquiry Case fee estimate updated as required. DB agreed to use this route for next round of ETG meetings.	



		DOGGEI	R BANK SOUTH PROJECTS		
		MM	O REGULAR MEETING		
Meeting with: Marine Management Organisation					
Locatio	ocation: Online				
Start T	art Time of Meeting: 15:00 Date of Meeting: 16/02/22				
	Attendees	Initials	Role & Organisation		
		AC	Offshore Consents Manager, DBS		
		DB	Offshore Consents Manager, DBS		
		JS	Marine Licensing Case Manager, MMO		
		КВ	Marine Licensing Case Officer, MMO		
Meetir	ng Objective(s):	• Reg	gular project update		
Item			Description	Presenter	
1	Actions from previous meeting	Į.		AC	
	2. All to agree final meet  No comments received  ACTION: DBS to issue	from MMO to	o date. JS agreed that these could be accepted as final.		
2	Project Programme			AC	
	confirmed through the next rou  1. Next round of ETGs to involvement could be involvement which RH to outline approach to  Seabed mode  Benthic samp  2. The Scoping Report was 2022.  3. Alternatives consultation August 2022.  4. PEIR submission has be	und of ETG me be scheduled arranged via t DHV are curre : Illing; and ling as withdrawn i on to follow. G	ently undergoing an update, with final dates to be setings. Current dates (subject to amendment) as follows: for the end of April 2022. JS flagged that CEFAS he MMO. DB raised two key documents for CEFAS ently drafting and aiming to circulate by the end of March in December 2021 and is due to be resubmitted by July Currently planned to continue into the beginning of ack slightly to February 2023.		
		pplication rem	nains unchanged by end of December 2023.	46 / 55	
3	Current Priorities			AC / DB	
	Metocean buoy deplo     The ML was awarded i	=	ast year. Unfortunately the deployment vessel has not		



been able to mobilise yet due to weather. An initial NtM / Start of Work notification was submitted in January, but commencement has been delayed.

JS advised that the return on MCMS could be re-opened if required. AC confirmed that although the NtM was uploaded, it was never "responded" to on the system so remains open for future uploads/amendment.

DBS will update with planned deployment date once known.

### 2. Marine traffic surveys

Anatec have recently completed the winter marine traffic survey in line with MCA guidance to feed into the Navigation Risk Assessment for the project.

The survey will be repeated in the summer.

### 3. Ornithology and marine mammal aerial surveys

Monthly aerial surveys are being flown by APEM in order to collate data on ornithology and marine mammals within the project site. Monthly reporting has been delayed previously, however the project is seeing some improvement and are confident that the first annual report will be issued in time to feed into the PEIR submission.

### 4. Fishing activity scouting surveys

PMSL have been appointed as Fisheries Liaison Officer for the projects and are aiming to complete a scouting survey for fishing gear within the project site in advance of the Site Investigation survey mobilisation at the end of March. Procurement for these is ongoing.

### 5. 2022 Site Investigation Campaign

o Geophysical survey (UHRS, SSS, MBES, Mag and SBP)

Due to mobilise at the end of March 2022 and run to end of September 2022. Survey of both offshore array areas and export cable route. Export cable surveys due to run from start to end of June.

Voluntary notification submitted in October 2021 with preliminary information and was updated and re-submitted on 07 Feb 2022 alongside EPS risk assessment which concludes that no EPS licence is required.

Details have also been put into Marine Noise Registry.

DB acknowledged that MMO guidance on notifications for geophysical surveys has changed recently. JS advised that interactive tool is used.

DB confirmed that the project is content that neither a Marine Licence nor a exemption notification is required for the geophysical survey works.

Geotechnical survey (boreholes and CPTs)

Five boreholes and ten CPTs in array area to be undertaken in August. Still in procurement process, but aiming to have detail for licensing submissions in March. SI team have advised that samples will be less than 1m3, so will be exempt from a marine licence, but a notification will be required to be submitted via MCMS.

Benthic survey (grab and epibenthic sampling)
 Benthic survey due to mobilise in August and is scheduled to conclude in
 September. Terms of Reference document is in draft and will be presented to ETG members by the end of March. Potential to be useful to have Cefas involvement in



	that and could align with seabed modelling discussions on a joint call.  The grab sampling is also anticipated to be a Marine Licence exempt activity, with notifications to be submitted as required later this year.  JS was content that all requirements for licensing had been considered	
	appropriately.	
4	MMO Update	JS
	JS raised importance of regular communication between Project and MMO. Particularly with regard to liaison with CEFAS, where there involvement is required. Early notification of submissions and timeframes required for review is useful in resource planning.	
	JS advised that previous projects had provided a submissions plan, to be regularly updated and reviewed on each call. It was recognised that DBS is in such early stages that submissions are fairly minimal, however the project agreed to draft this to ensure best practice going forward / as the project gets busier.	
	ACTION: DBS to provide submissions tracker in advance of next meeting.	
5	AoB	All
	JS advised that the metocean licence end date is checked to ensure weather delays are not passing expiry date. AC was content that there was a long lead period included, but will double check.	
	DB flagged the open contaminants query currently being discussed via e-mail for the disposal grounds in the vicinity of the Project. DBS are awaiting a response from Chris Turner when he's back from leave (JS thinks w/c 21st Feb). Some of disposal grounds are quite old, so data is not particularly easy to find. Any historic data available would be useful.	



004545125-01					
DOGGER BANK SOUTH PROJECTS					
MMO REGULAR MEETING					
Meeting with:	Marine Ma	anagement Organisation	1		
Location: Online					
Start Time of Meeting:	13:00	Date of Meeting:	21/04/22		
Attendees	Initials	F	Role & Organisation		
	AC	Offshore Consents Ma	anager, DBS		
	DB	Offshore Consents Ma	anager, DBS		
	JS	Marine Licensing Case Manager, MMO			
	KW	Marine Licensing Case Officer, MMO			
Meeting Objective(s):	Regular pro	oject update			

Item	Description	Presenter
1	Actions from previous meeting	AC / DB
1	OUTSTANDING ACTION: DBS to issue final Dec meeting minutes as PDF. Issued and closed.  JS confirmed that MMO are happy with Feb meeting minutes.  ACTION: DBS to issue final Feb meeting minutes as PDF.  OUTSTANDING ACTION: DBS to provide submissions tracker in advance of next meeting.  Not yet provided as programme has been changeable. DBS to provide in advance of June call, but upcoming submissions are anticipated as follows:  • Benthic Survey Method Statement submitted 14/4/22: Cefas engagement requested.  KW confirmed that this will be issued to Cefas today with a 15 working days turnaround for comments. DB acknowledged that this is a priority document. Should the ETG deem a meeting necessary it's likely to be in late May, with comments	AC / DB
	<ul> <li>requested beginning of June. A placeholder meeting invitation will be issued for a potential meeting, with this being cancelled if not required.</li> <li>Site Selection ETG Presentation submitted 19/04/22</li> <li>Benthic survey exemption notification TBC likely next 2-3 weeks</li> <li>Geotechnical survey exemption notification TBC likely next 2-3 weeks</li> <li>Marine Physical Processes Method Statement TBC likely next 2-3 weeks: DB advised that this document outlines RHDHV's intended approach in terms of existing data to inform the baseline and the technical assessment. This doc will also require Cefas input.</li> <li>Scoping Report July 22</li> <li>PEIR Feb 23</li> </ul>	



	DCO Submission Dec 23	
2	DBS Update	AC / DB
	Grid-connection and cable corridor: Grid HND process ongoing with National Grid. The latest update included two connections to Creyke Beck, which DBS is intended to take forward for Scoping and alternatives consultation. Confirmation is anticipated from National Grid in June.	
	<ul> <li>Project programme</li> <li>Site selection ETG 04/05/22: MMO confirmed attendance. DB raised that NE are not able to attend, so looking into running an additional session. Will extend the invite to MMO as it will be another opportunity to raise any queries with an offshore focus as the main ETG meeting is likely to be predominantly onshore.</li> <li>Scoping Report July 22</li> <li>Non-Statutory Public Consultation TBD, but anticipated mid-late August 2022</li> <li>PEIR Feb 23</li> <li>DCO Submission Dec 23</li> </ul>	
	<ul> <li>Metocean buoy deployment: Deployed 15th March following a period of poor weather. All pre-commencement returns uploaded to MCMS, but AC requested vessel notification and NtM returns were re-opened due to last minute change of vessel. These have since been discharged with the previous notifications, so new Returns are required to upload the correct documentation.</li> <li>JS flagged there has been a backlog with the licensing support team.</li> <li>ACTION: AC to send licence/Return details to JS to re-open. [Post-meeting note: New Returns opened and updated documentation uploaded to MCMS. Action closed]</li> <li>Marine traffic surveys: The winter survey was completed on 13th Feb and final reporting is with the project for acceptance. Limited vessel traffic recorded. Aiming to include results in Scoping Report. Planning for summer survey to commence in June/July.</li> <li>Ornithology and marine mammal aerial surveys: Monthly surveys are ongoing. First year completed Feb 2022, with reporting due end of this month.</li> <li>Fishing activity scouting surveys: Array area complete 10th April 2022. Only four</li> </ul>	
	<ul> <li>SMBs recorded in site, but not enough information to identify the owner. A further scouting survey of the export cable route is due to commence in May 2022 in advance of the geophysical survey.</li> <li>2022 Site Investigation Campaign         <ul> <li>Geophysical survey (UHRS, SSS, MBES, Mag and SBP): Vessel has been mobilising/field testing since 21/03/22 for array survey. Some technical issues encountered which has delayed mobilisation. Mobilisation sign-off and surveying expected to commence later this week. Contractor is investigating the potential to bring additional vessels in field to catch up to original</li> </ul> </li> </ul>	





004545126-01						
DOGGER BANK SOUTH PROJECTS						
MMO REGULAR MEETING						
Meeting with:	Marine Ma	anagement Organisation	1			
Location:	Location: Online					
Start Time of Meeting:	16:00	Date of Meeting:	21/06/22			
Attendees	Initials	ı	Role & Organisation			
	AC	Offshore Consents Ma	anager, DBS			
	DB	Offshore Consents Ma	anager, DBS			
	JS	Marine Licensing Case Manager, MMO				
	KW	Marine Licensing Case Officer, MMO				
Meeting Objective(s):	Regular pro	oject update				

Item	Description	Presenter
1	Actions from previous meeting	AC / DB
	OUTSTANDING ACTION: DBS to issue final Feb meeting minutes as PDF. Issued and closed. JS confirmed that MMO are happy with April meeting minutes.  ACTION: DBS to issue final April meeting minutes as PDF. Post-meeting note: Issued with these draft minutes.	
	OUTSTANDING ACTION: DBS to provide submissions tracker in advance of next meeting. This has been prepared and has been issued as an attachment with these minutes. The tracker was prepared by Royal Haskoning. It captures ETG-related submissions and meetings (in essence those specifically related to the preparation of the DBS DCO), but does not cover survey/Marine Licence-related submissions to MMO, such as survey licensing notifications and applications. Action: DBS team to provide ETG submissions and meetings tracker once prepared. Post-meeting note: Issued with these draft minutes.	
2	DBS Update	AC / DB
	Update	
	Site selection  ■ Site selection work has been continuing. Survey corridors have been selected offshore, the data from which will be used to help make further refinements and inform assessments. ETG meetings have been held and concluded. Useful feedback was received which has fed into the project. MMO confirmed that they had no comments on the minutes from the meeting circulated by Royal Haskoning.	



DB presented a figure showing the export cable route corridors selected for survey. Low spec survey work has been completed across the option areas presented during the site selection ETG meetings. The outputs of these surveys were used to refine the corridor for final survey. No comments were provided MMO on the routes indicated.

### Scoping

• DBS continues preparing the Scoping Report for the projects. A first draft of the report has been received and reviewed by the DBS team and is now back with consultants and awaiting updates.

### Further issues

- Preparation for a non-statutory consultation in Autumn is ongoing, principally this will focus on substation locations
- The Crown Estate HRA for R4 is with the Secretary of State for review and Derogation Decision. Outputs from this exercise are anticipated in the next month
- HRA Screening drafted and under review. DBS is anticipating an Autumn consultation with stakeholders
- The first annual bird and mammal survey report has been received and reviewed by the DBS team. The results will be used to inform PEIR
- The metocean buoys remain deployed offshore and continue to gather data
- The Benthic Terms of Reference and Marine Physical Processes Method Statement documents have been shared with the seabed ETG shared. MMO confirmed that they had no comments on the minutes of the meeting distributed by Royal Haskoning. DBS noted that a response had been received from Cefas via MMO on the Benthic Terms of Reference, but not on the physical processes document. KW noted that she would check here files and forward on any detail Happy that no intention to response to minutes. Katherine to check and send if not received. *Post meeting note: KW has distributed Cefas's comments to the DBS team*.

### Programme update

Little has changed with the DBS programme since the last DBS/MMO meeting. Key dates were confirmed as:

- Scoping July
- PEIR Spring 2023
- DCO end 2023

### Survey update

• Array area —slow progress to begin with. A vessel switch from Mainport Geo to the Frontier has delivered much improvement in data acquisition rates. C. 25-30% of geophysical data acquisition has been completed across the survey area. It is hoped that the pace will pick up further in the future.

Some additional data acquisition work is being considered to promote enhanced data



interpretation through surveying tie-lines to the Sofia windfarm area. A noise assessment for this additional work is being progressed. DBS are not expecting an EPS trigger. A second survey vessel (the Searcher) is coming into the array area in July to further assist with data acquisition

• ECR – The Discovery mobilised and started working c. week ago along the offshore stretches of the ECR. Progress has been slow due to kit issues. Kit being fixed and should be surveying ECR in earnest from Tues/Wes this week (22/6/22). The Valkyrie is mobilising and will commence surveying this week along the inshore stretches of the survey route.

Fisheries clearance negotiations are ongoing. Striking agreements has been challenged for the gear, which, lies primarily in the inshore areas. The Rover Alpha has been deployed to act as a guard vessel whilst the cable route surveys are being undertaken

- Benthic survey commencing 1/8/22 as planned. Crown Estate Seabed Survey Licence application has been made around a month ago and should be granted soon. A Marine Licence Exemption notification has been submitted. Dispensation for trawling in the Dogger Bank SAC has been received from MMO. NEIFCA dispensation for trawling in inshore waters is awaited, with an application having been made
- Intertidal survey expected for delivery in August 2022. Scope delivery to RWE w/c 20/6/22, before consultation with ETG in due course.
- Geotech 2022 surveys planned for August/Sept. Seabed Survey Licence application submitted to the Crown Estate, with a Marine Licence Exemption notification logged on MCMS
- Geotech 2023 survey planning is ongoing, with scope to be confirmed. **Action:** MMO committed to providing a non-binding view on licencing requirements if DBS to provide and outline spec for the survey work.
- Geophys 2023 planning and prep for scope is ongoing
- Shipping and navigation surveys Star of Hope vessel mobbing early July. Going through pre-mob sign-off.

# 3 MMO Update a. MMO intend to transfer the DBS case over to a DCO case, which is logged as an enquiry on MCMS at present. A revised fee estimate will need to be distributed by MMO to DBS and accepted. The project will code provided for the DCO will be used through to post-consent. MMO will provide an update in due course. Post-meeting note: an indicative fee estimate was distributed to DBS by MMO on 22/6/22. A formal estimate will follow in due course. b. MMO noted it would be helpful to receive a copy of the Scoping Report direct when this



	is formally issued to PINS goes to PINS. Action: DBS to issue Scoping Report directly to MMO on formal issue.	
4	АоВ	All
	It was noted that the change of names on the main project case on MCMS from appears to have helped eliminate invoicing issues.	



		DOGGER	BANK SOUTH PROJECTS		
		MM	O REGULAR MEETING		
		ECO D	OC REF: 004517505-01		
Meeti	ing with:	Marine Ma	anagement Organisation		
Locati	ion:	Online			
Start <sup>-</sup>	Time of Meeting:	15:00	Date of Meeting:	1/09/22	
	Attendees	Initials	Role	& Organisation	
		AC	Offshore Consents Mana	ger, DBS	
		DB	Offshore Consents Mana	ger, DBS	
		HP	Consents Intern, DBS		
		JS	Marine Licensing Case M	anager, MMO	
		MR	Marine Licensing Case Of	ficer, MMO	
Meeti	ing Objective(s):	Regular pr	oject update		
Item			Description		Presente
1	Actions from previous n	neeting			AC
	31/08. Awaiting confirm comments / confirmatio  OUTSTANDING ACTION Action closed – stakehol meetings and submissio	ation from Kathen.  DBS to provide der engagement the E	erine White before finalisate submissions tracker in advanced tracker issued 31/08. Discuspert Topic Groups (ETG) and through the regular calls.	on - JS to e-mail and rance of next meeting. ussed the content i.e.	
2	DBS Update				AC / DB
	<ul> <li>Site selection</li> <li>As per June update. Survey results to inform next round of export cable route (ECR) option down-selection. It's likely that the red line boundary used for PEIR will be the same as Scoping.</li> </ul>				
	Scoping Opinion du  • MMO confirmed	ie 5 <sup>th</sup> Sept. I no major comm	nned on July 27 <sup>th</sup> 2022. MM nents to raise and agreed th specialists within ETG call.	·	



- Scoping July (submitted)
- PEIR Q2 2023
- DCO Now anticipated to be Q1 2024

### Consultation

- Non-statutory consultation still planned for Autumn, with public exhibition events in planning in September and October
- Post-Scoping (September) / Pre-PEIR (November / December) ETG meetings to be arranged as required, following review of the Scoping Opinion
- Discussed potential for the next call to be face-to-face meeting with the MMO. JS based in Newcastle. MR based in Bristol. Details to be arranged following confirmation of ETG meeting dates.

### Survey update

• <u>Geophysical</u> - Array survey ongoing with an additional vessel brought in at the beginning of the month to catch up on programme due to delays with first vessel mobilisation. Due to continue through to mid-October, currently approx. 80% complete.

Complete in ECR and re-opened to fishers in August. Presence of fishing gear meant 100% coverage was not achieved with all sensors due to health and safety issues related to towing equipment in proximity to fishing gear surface marker buoys / ropes. 100% coverage has been achieved with hull mounted sensors, but towed sensors could not be used in all areas.

Some additional data acquisition work is being considered to promote enhanced data interpretation through surveying tie-lines to the Sofia windfarm area. Two single lines proposed and a noise assessment for this additional work has been completed, concluding that a European Protected Species licence is not required.

• <u>Benthic</u> – survey mobilised early Aug as planned and completed 20<sup>th</sup> Aug, with The Crown Estate Seabed Survey Licence and dispensations for epibenthic trawls received in time from the MMO and NEIFCA. DBS noted that NE requested a condition on the IFCA dispensation for works to be completed before October due to red throated diver mitigation. The project was able to accept this as, however it is considered overprecautionary since works were with a single vessel and a very limited duration (hours) within the SPA. This has been raised with the Offshore Consents Team Lead for discussion with NE as there is a concern that over-precautionary advice may have greater implications in future.

Geophysical coverage was not as progressed as originally anticipated prior to the mobilisation of the benthic campaign, so a higher number of grabs required a Drop-



Down Video check in line with the agreed Benthic Survey Method Statement. DBS expressed thanks to the MMO for their communication with NE on the grab sampling within the SAC to resolve issue in advance of survey mobilisation.

- <u>Geotech</u> Survey now complete. Awaiting response and liaising with heritage consultants with respect to any further actions. There is potential for an additional nearshore seismic refraction survey to be undertaken to inform ground conditions around potential HDD sites. Awaiting confirmation from engineering and survey teams, but not anticipating any licensing requirements from MMO as equipment is not tethered to seabed (so exemption notification only).
- <u>Intertidal</u> survey now expected to commence in September 2022, due to delay in acquiring licence from The Crown Estate. Method Statement circulated for comment, with no edits required. Thanks to MMO for swift response.
- <u>Geotech 2023</u> planning is ongoing, currently out for tender with final scope to be confirmed. **Outstanding Action: MMO committed to providing a non-binding view on licencing requirements if DBS provide an outline spec for the survey work.** DB to provide details in due course procurement exercise is still ongoing. JS welcomed this approach and re-confirmed that MMO can review and provide advice as required.
- <u>Geophys 2023</u> planning and prep for scope is ongoing, aiming to issue tender documents later this month.
- <u>Shipping and navigation</u> Star of Hope completed summer marine traffic survey, with draft reporting anticipated in mid-Sept. The geophysical survey vessel currently offshore haa AIS/radar receivers installed to collate further data.
- <u>Aerial</u> Surveys for birds and marine mammals and ongoing on a monthly basis. The Year 1 data has been received and will be used to inform PEIR assessments.
- <u>Fishing Gear Scouting</u> The vessel Rover Alpha has recently completed a fishing gear scouting survey of the array and nearshore export cable to inform commercial fisheries assessments. Further surveys are in planning for Oct/Nov this year.
- <u>Metocean buoys</u> still in situ. The Crown Estate Seabed Survey licence required amendment to extend the expiry date due to delay in deployment. The Marine Licence has been reviewed no amendments are required.

### **HRA**

 BEIS confirmed that The Crown Estate may proceed with Round 4 Plan on basis of derogation. Next steps under discussion with TCE. Latest programme is to enter into AfL in Oct/Nov, but this is subject to agreement.



	<ul> <li>HRA Screening is drafted and currently under review. Meeting issued for 15<sup>th</sup> September for consultation with stakeholders. ACTION: invite to be forwarded to Mel.</li> <li>Discussions / planning ongoing for potential additional surveys to support SAC extension and habitat recoverability. Likely that habitat recoverability surveys will be undertaken this summer, with SAC extension surveys planned for next year, subject to approvals.</li> </ul>	
3	MMO Update	JS/MR
	<ul> <li>a. New MCMS DCO Case set up and fee estimate accepted. On acceptance, case disappeared from workbasket. ACTION: JS to check and confirm that permissions are correct.</li> <li>b. JS / MR had nothing further to raise.</li> </ul>	
4	АоВ	All
	No AoBs raised.	



DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING					
Meeting with:	Meeting with: Marine Management Organisation				
Ecodoc Ref:	0046850	19-01			
Location:	Online				
Start Time of Meeting: 12:00 Date of Meeting: 20/10/22					
Attendees	Initials	Role & Organisation			
	AC	Offshore Consents Mo	anager, DBS		
	DB	Offshore Consents Mo	anager, DBS		
	HP	Consents Intern, DBS			
	TC	Marine Licensing Case Manager, MMO			
	MR	Marine Licensing Case Officer, MMO			
Meeting Objective(s): Regular project update					

	<b>Description</b>	Presenter
1	Actions from previous meeting	AC
	OUTSTANDING ACTION: June minutes awaiting confirmation from Katherine White before finalisation - JS to e-mail and comments / confirmation. 20/10 TC to chase minutes confirmation.	
	OUTSTANDING ACTION: HRA Screening meeting invite to be forwarded to MR. 20/10 Action closed – meeting held 19 <sup>th</sup> Sept.	
	OUTSTANDING ACTION: New MCMS DCO Case set up and fee estimate accepted. On acceptance, case disappeared from workbasket. JS to check and confirm that permissions are correct. 20/10 TC to follow up on this action.	
	licencing requirements for 2023 geotech campaign if DBS provide an outline spec for the survey work. 20/10 To discuss later in meeting.	
	for the survey work. 20/10 To discuss later in meeting.	
2	for the survey work. 20/10 To discuss later in meeting.  DBS Update	AC / DB
2	for the survey work. 20/10 To discuss later in meeting.	AC / DB
2	for the survey work. 20/10 To discuss later in meeting.  DBS Update Site selection	AC / DB
2	for the survey work. 20/10 To discuss later in meeting.  DBS Update Site selection  No update from previous meeting.	AC/DB
2	for the survey work. 20/10 To discuss later in meeting.  DBS Update  Site selection  • No update from previous meeting.  Scoping  • Scoping Opinion received 5th Sept, including response from MMO. Currently under review and next round of Expert Topic Group (ETG) meetings to be	AC/DB



DCO -Anticipated to be Q1 2024

### Consultation

- Non-statutory consultation concluded on 14<sup>th</sup> Oct. Feedback is under review by our Consultations Manager. The majority of feedback is, as expected, focussed on the onshore elements of the project – cable corridors and substation zones, with a limited amount on landfall locations.
- Post-Scoping / Pre-PEIR (November / December) ETG meetings to be arranged as required, following review of the Scoping Opinion.
- Potential for December meeting to be face-to-face discussed and MMO agreed that this would be beneficial. **ACTION: HP to issue poll to collate preferences on date and location.**

### Survey update

- <u>Geophysical</u> works almost completed with the programme likely to be concluding in the next few weeks at most. Approximately 2-3 days of acquisition left, but we may demobilise before completion as outstanding data are non-essential (cross-lines) for geological interpretation.
- <u>Benthic</u> completed before the last meeting (August) reporting looking to be around December.
- <u>Geotech</u> array campaign complete, but potential additional work planned at the export cable landfall sites in the form of seismic refraction survey.
   Anticipated to be Marine Licence Exempt as it is for the purposes of scientific research and does not involve any equipment tethered to the seabed, but awaiting final specification from survey team to confirm.
- <u>Intertidal</u> Survey mobilised and concluded on the 23<sup>rd</sup> September. DBS awaiting the technical report, but it is understood that the sediments around landfall are largely sandy with very low abundances of fauna present.

### • Geotech 2023

- Survey scope is yet to be finalised, but indicative scope for 2023 includes geotechnical sampling within the offshore export cable corridors (including landfall area) to potentially include:
  - Up to 5 landfall boreholes to 30m depth to be grouted on completion; and
  - Up to 300 offshore cone penetration tests and vibrocores to 5m depth.
- It is currently anticipated that no individual sample's volume will exceed 1m<sup>3</sup>. Acquisition could be from a dynamically positioned vessel, jack-up vessel or a combination of the two.
- The tender document includes potential optional extras of a seafloor rotary corer (to 3m depth) and grab samples, but we are awaiting confirmation of whether these will be used and, if so, the parameters.
- It is DBS' understanding that due to the planned grouting of the boreholes following completion the Marine Licence Exemption route is not applicable to the proposed scope and a full Marine Licence



Application would be required, but would appreciate feedback from the MMO on this. **ACTION:** Upon provision of final anticipated survey spec by RWE TC is to review proposed scope for Geotech 2023 campaign and feedback on most appropriate licensing route.

- TC suggested that, if a full Marine Licence Application is required, DBS should include as much information as possible. Similar recent applications have been delayed whilst awaiting further information on anchor patterns / jack-up footprints in order to confirm avoidance of Sabellaria reef. DB advised that preliminary information available from the 2022 surveys suggest that Sabellaria may not be a major issue for the DBS projects, but this would be confirmed on full analysis of the data.
- AC confirmed that RWE's Sofia application had been reviewed (MLA/2020/00019/1), but if the MMO could signpost to any more recent similar applications that would be useful. ACTION: TC to provide case numbers for relevant applications for DBS review.
- <u>Geophys 2023</u> Discussion around timing and procurement ongoing looks like this may now be a 2024 campaign subject to confirmation
- Shipping and navigation The vessel "Karima" mobilised to DBS East on 16<sup>th</sup> Oct to conduct a 14 day marine vessel traffic survey. On completion, the vessel will move to DBS West to complete a further 14 day survey. This is the third survey campaign (and second over the winter period) and is being repeated to ensure compliance with MGN 654 and it's requirement for surveys to be within 24 months of the EIA submission.
- <u>Aerial</u> Monthly aerial surveys to collate ornithology and marine mammal data remain ongoing with the September and October surveys successfully flown.
   The Year 1 data is currently being analysed to feed into the PEIR assessments.
- Fishing Gear Scouting Three surveys have been completed to date, with an additional fishing gear scouting survey of the full offshore site planned during October and November. The vessel is currently undergoing final premobilisation readiness checks and is intended to be mobilised in the near future. Intention is to expand on existing datasets to create a more robust picture of how fishing activity moves throughout the site over the course of the year.
- Metocean buoys Metocean buoys (deployed in March 2022) remain in situ within the DBS East and West array sites. The Marine Licence is valid until Dec 2024 and allows for deployment for up to 12 months (to March 2023).
   ACTION: AC to liaise with DBS engineering team to ascertain when metocean buoy removal is planned, so notice can be given of any potential variations required to the licence.

### 3 MMO Update

There's no major issues across projects currently to flag. ACTION: TC to request update on relevant issues from wider team in advance of next meeting.

MR/TC



4	АоВ		All
	•	No AoB raised.	



DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING						
Meeting with:	Marine Management Organisation					
Ecodoc Ref:						
Location:	Online					
Start Time of Meeting:	15:00	Date of Meeting:	07/12/22			
Attendees	Initials	Role & Organisation				
	DB	Offshore Consents Manager, DBS				
	TC	Marine Licensing Case Manager, MMO				
	MR	Marine Licensing Case Officer, MMO				
Apologies	Initials	Role & Organisation				
	AC	Offshore Consents Manager, DBS				
	HP	Consents Intern, DBS				
Meeting Objective(s):	Regular pr	project update				

Item	Description	Presenter
1	Actions from previous meeting	AC
	OUTSTANDING ACTION: June minutes awaiting confirmation from before finalisation - JS to e-mail and comments / confirmation. 20/10 TC to chase minutes confirmation.	
	Post-meeting note: action complete and closed	
	OUTSTANDING ACTION: New MCMS DCO Case set up and fee estimate accepted. On acceptance, case disappeared from workbasket. JS to check and confirm that permissions are correct. 20/10 TC to follow up on this action.	
	OUTSTANDING ACTION: MMO committed to providing a non-binding view on licencing requirements for 2023 geotech campaign if DBS provide an outline spec for the survey work. 20/10 To discuss later in meeting.	
	Post-meeting note: action complete and closed	
	OUTSTANDING ACTION: TC to provide case numbers for relevant applications to geotechnical campaign for DBS review.	
	Post-meeting note: action complete and closed	
	OUTSTANDING ACTION: AC to liaise with DBS engineering team to ascertain when metocean buoy removal is planned, so notice can be given of any potential variations required to the licence.	
2	DBS Update	AC / DB
	Site selection	



- Planning for confirmation of landfall is underway with a review of the information that will be available prior to ES design freeze being undertaken
- Offshore export cable corridor options selection remains outstanding. Burial
  assessment work is being undertaken which will assist with decisions, taken
  together with other information such as ecological and heritage survey outputs
  and pre-existing information such as environmental designations etc
- Work will continue in relation to landfall and export cable selection over the first half of 2023

### **PEIR**

 Design envelope for PEIR has been frozen and document production has commenced in earnest, targeting a consultation date of early Spring 2023

### Programme update

 No change from previous meeting. Continues as was with key milestones over the next 18 months continuing to be PEIR in Spring 2023 and DCO submission in early 2024.

### Consultation

- Newsletter winter 2023 published 30/11/22 and distributed to landowners and stakeholders.
- Royal Haskoning DHV working on dates and invitations for post-scoping/pre-PEIR ETG meetings – expect to see these in the near future
- Wider consultation programme is being developed to establish touch-points on the programme between now and submission – a key recent change in approach is the insertion of a post-PEIR/pre-DCO submission consultation window around Sept/Oct 23 which has been established to allow feedback on draft-ES chapters prior to submission

### Survey update

- <u>2022 SI Campaign</u> concluded in Oct 2022 around the scheduled completion date. Huge campaign involving 8 vessels and many hundreds of people gathering geophys, geotech and benthic data over a period of around six months. The first reporting deliverables have been received for RWE review with this stage set to continue into next year.
- 2023 Geotechnical Campaign procurement is ongoing. Prospective date of commencement is April 23, TBC. Outline spec provided to MMO w/c 21/11/22. Outline provided of scope, noting RWE view that an ML is required for grouting activities alone. Application to submitted in the New Year. MMO promised to provide pointers towards any recent applications which may have been submitted for similar activities. Post-meeting note action completed
- 2023 Seismic Refraction Seismic refraction surveys from c. 1.5km offshore to c.1.5km onshore are in the planning and procurement stages. Surveys involve use of geo/hydrophones laid out in a streamer formation on the seabed with a seismic source emitting a signal and the 'phones recording returning signals. Allows interpretation of sub-bottom geology for HDD planning. Proposed as a



notifiable activity, SSL Crown Licence required, EPS RA and JNCC MNR notifiable.

# ACTION: RWE to present slide illustrating the high-level details of the proposed activity following the meeting

- <u>2024 Geophysical Campaign</u> Discussion around timing and procurement ongoing potential to be delayed to 2025.
- <u>Shipping and navigation</u> The vessel "Karima" completed the third marine vessel traffic survey campaign with 14 days in DBS East and 14 days in DBS West on 13<sup>th</sup> November 2022. This is the second survey over the winter period which has been repeated to ensure compliance with MGN 654 and it's requirement for surveys to be within 24 months of the EIA submission. The report is currently in draft for RWE's attention in the near future.
- <u>Aerial</u> Monthly aerial surveys to collate ornithology and marine mammal data remain ongoing with the November survey successfully flown on 25<sup>th</sup> November. The December survey is still outstanding, with the first available weather window to be utilised as we move into the more uncertain winter months. The Year 1 data is currently being analysed to feed into the PEIR assessments, with draft outputs anticipated for RWE review imminently.
- Fishing Gear Scouting The fourth fishing gear scouting survey, which included the full offshore site, completed on 2<sup>nd</sup> December. Results broadly align with previous surveys, with the majority of fishing gear being observed in the nearshore sections of the ECR. Fishing gear was also observed on the western boundary of DBS West, but did not extend as far east as recorded earlier in the year. This data will expand on existing datasets to create a more robust picture of how fishing activity moves throughout the site over the course of the year. Consultation with fishers is currently ongoing with the Project's Fisheries Liaison Officer, Precision Marine Survey Limited, currently undertaking port visits to collate further baseline information on fishing activity in the region. Meetings were held with fishers based around Bridlington w/c 21<sup>st</sup> November and plans to visit European ports, including Sweden, France and Belgium are in place for the next few weeks.
- Metocean buoys Metocean buoys (deployed in March 2022) remain in situ within the DBS East and West array sites. Service of the buoys was successfully carried out w/c 28<sup>th</sup> November.

  The Marine Licence (L/2021/00413/1) is valid until Dec 2024 and allows for deployment for up to 12 months (to March 2023). The engineering team have confirmed that removal is planned in March 2023, but given the uncertainties in weather at this time of year it is possible removal may be delayed. ACTION:

  Could MMO please confirm that deployment past March 2023 due to weather delay in removal would still be licenced as the licence expiry is Dec 2024? Post meeting note confirmed that extension is sensible to cover any requirement beyond present expiry date.



	HRA screening report to be issued to stakeholders for comment in the near future	
3	<ul> <li>MMO Update</li> <li>Case Manager / Officer Update?</li> <li>TC confirmed no changes to personnel are proposed at present.</li> </ul>	MR/TC
4	Invoicing: AC issued e=mail on 30 <sup>th</sup> November with regard to invoice 536887. The invoice includes 39 hours of Cefas time during October. ACTION: Could MMO please confirm which activities these charges relate to? Post-meeting note – action complete.	All



DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING							
Meeting with:	Marine Mc	Marine Management Organisation					
Ecodoc Ref:	0046846	004684643-01					
Location:	Online	Online					
Start Time of Meeting:	15:00	Date of Meeting: 15/2/23					
Attendees	Initials	Role & Organisation					
	DB	Offshore Consents Manager, DBS					
	AC	Offshore Consents Manager, DBS					
	HP	Consents Intern, DBS					
	TC	Marine Licensing Case Manager, MMO					
	MR	Marine Licensing Case Officer, MMO					
Meeting Objective(s):	Regular pr	roject update					

Item	Description	Presenter
1	Actions from previous meeting	AC
	ACTION: RWE to present slide illustrating the high-level details of the proposed seismic refraction activity following the meeting. 15/02 Action complete. Closed.	
	ACTION: Could MMO please confirm that metocean buoy deployment past March 2023 due to weather delay in removal would still be licenced as the licence expiry is Dec 2024? MMO confirmed that extension to activity description would be required. 15/02 Variation request submitted 15/02.	
	ACTION: AC issued e-mail on 30th November with regard to invoice 536887. The invoice includes 39 hours of Cefas time during October. Could MMO please confirm which activities these charges relate to? 15/02 Action complete and invoice approved for payment. Closed.	
	ACTION: New MCMS DCO Case set up and fee estimate accepted. On acceptance, case disappeared from workbasket. JS to check and confirm that permissions are correct. 20/10 TC to follow up on this action. 15/02 MMO confirmed that DCO Case will not be visible until there are open actions. Action complete. Closed.	
2	DBS Update	AC / DB
	<ul> <li>Site selection</li> <li>Planning for confirmation of landfall via review of information available.</li> <li>Offshore export cable corridor options selection remains outstanding. Burial assessment reports are due to be with RWE within the next month. The outputs will be taken together with other information such as ecological and heritage information to inform selection.</li> </ul>	
	<ul> <li>PEIR</li> <li>Chapter production and reviews are on-going and a series of pre-PEIR ETG meetings is nearly complete. DBS is on track to consult on PEIR in Spring 2023</li> </ul>	



### Programme update

- No change from previous meeting. Continues as was with key milestones over the next 18 months continuing to be PEIR in Spring 2023 and DCO submission in early 2024.
- It is intended that DBS will undertake a post-PEIR, pre-ES consultation on environmental assessment work in Autumn 2023

### Consultation

- SOCC to be publish in the next few weeks
- A new project newsletter is planned for publication, again for the next few weeks

### Survey update

- 2023 Geotechnical Campaign procurement is ongoing. Prospective date of commencement is May-August 23. RWE intend to submit a Marine Licence Application for the grouting of the deep boreholes. All other work is intended for completion under an Exemption notification. Both submissions will be made in the next week. Crown Estate SSL app will also be made in the next few weeks. MMO confirmed that a 13 week turnaround on marine licence applications can be expected providing there are no issues. Advised that justification for exempt activities will likely be requested from NE.
- 2023 Seismic Refraction Surveys from c. 1.5km offshore to c.1.5km onshore are in the planning and procurement stages. Surveys involve use of geo/hydrophones laid out in a streamer formation on the seabed with a seismic source emitting a signal and the 'phones recording returning signals. Allows interpretation of sub-bottom geology for HDD planning. No ML submissions or exemption notifications are proposed as the surveys do not constitute either a deposit or removal. Crown Licence SSL is required and EPS RA and JNCC MNR will be notified. MMO wildlife team to be contacted in relation to EPS related matters, depending on the outcome of EPS RA work. MMO agreed with this approach.
- 2023 SAC extension benthic campaign outside and overlapping with the northern border of Dogger Bank SAC is planned for later this Spring. 60 grab samples to be acquired. Estimated delivery in April. Crown Estate SSL in hand and notifications to be issued to 3<sup>rd</sup> party asset owners shortly. Marine Licence Exemption drafted and pending finalisation and submission within the next week. =2.3/12331000000=18bnth of a % of SAC affected by survey, hence no likely effect on SAC- and no intention to undertake any further HRA-related activity. MMO accepted with this approach.
- 2024 Array Area Geophysical and Geotechnical Campaigns Discussion around timing and procurement ongoing - potential for geophysical to be delayed to 2025.



	•	Shipping and navigation - The vessel "Karima" completed the first survey of the ECR platforms location on 7 <sup>th</sup> Feb to ensure compliance with MGN 654. The survey is intended to be repeated in the summer.	
	•	<u>Aerial</u> - Monthly aerial surveys to collate ornithology and marine mammal data remain ongoing with February due to be the final survey representing 24 months of data collection. The Year 1 data has been analysed to feed into the PEIR assessments, with draft outputs presented at the Ornithology ETG meeting on $7^{\text{th}}$ Feb.	
	•	Fishing Gear Scouting – No imminent plans for further fishing gear scouting surveys this year, but considering repeating the arrays surveys this winter to provide an update on activity following the implementation of the DB SAC fishing Byelaw. European port visits have been completed and information collated to feed into PEIR assessments.	
	•	Metocean buoys - Metocean buoys (deployed in March 2022) remain in situ within the DBS East and West array sites. The Marine Licence (L/2021/00413/1) is valid until Dec 2024 and allows for deployment for up to 12 months (to March 2023). Intention is to remove the buoys within the 12 month window, but variation request to be issued to amend wording in case of delay due to vessel availability/weather windows.  ACTION: AC to issue variation request to (L/2021/00413/1) on MCMS.  MMO advised a 6 month extension variation for increased contingency. Postmeeting note: Variation request submitted 15/02.	
	HRA		
	•	HRA screening report issued to stakeholders and comments from MMO and NE recently received. These are under review/consideration.	
3	MMO U	<b>Jpdate</b> A new Case Manager will be allocated in the next few weeks to take over from TC while on maternity leave.	MR/TC
4	Action	ns .	All
	•	DBS to confirm extent of noise modelling materials to be presented in the upcoming Marine Mammals ETG so MMO can arrange appropriate attendance. AC to issue variation request to (L/2021/00413/1) on MCMS. Post-meeting note: Variation request submitted 15/02.  Regular meetings to be increased to once a month with RHDHV to start attending. Aim for next meeting with new Case Manager to be face to face.	



DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING					
Meeting with:	Marine Mar	nagement Organisation			
Ecodoc Ref:	004783629	9-01			
Location:	Online				
Start Time of Meeting:	15:00	Date of Meeting:	19/04/23		
Attendees	Initials	Role & Organisation			
	DB	DB Offshore Consents Manager, DBS			
		Offshore Consents Mai	luger, DBS		
	AC	Offshore Consents Mar			
	AC	Offshore Consents Mar	nager, DBS		
	AC HP	Offshore Consents Mar Consents Intern, DBS	nager, DBS Manager, MMO		

Item	Description/ Discussion	Presen ter
1	Outstanding actions	
	<ul> <li>Regular meetings to be increased to once a month with RHDHV to start attending. Aim for next meeting with new Case Manager to be face to face. 19/04 - Agreed that Lon- don would be best location for face to face. ACTION: HP to add potential May dates to existing Doodle.</li> </ul>	
2	DBS Update	
	<ul> <li>Pre-PEIR ETG meetings complete and drafting of PEIR well underway.</li> <li>DBS is on track to consult on PEIR later in Spring 2023, with a six week statutory consultation programmed.</li> <li>Chapters have been drafted in accordance with agreements reached through ETGs.</li> </ul>	
	<ul> <li>Programme update</li> <li>No change from previous meeting. Continues as was with key milestones over the next 12 months continuing to be PEIR in Spring 2023 and DCO submission in early 2024.</li> <li>It is intended that DBS will undertake a post-PEIR, pre-ES consultation on environmental assessment work in Autumn 2023</li> </ul>	
	Survey update	



- 2023 Geotechnical Campaign Prospective date of commencement is May-August 23. RWE have submitted a Marine Licence Application for the grouting of the deep boreholes. All other work is intended for completion under an Exemption notification as previously agreed. MMO confirmed that target date for determination is now 10<sup>th</sup> of July. DBS would appreciate any expedition of this possible as the works to be completed under the Marine Licence are currently programmed to commence mid-June.
- 2023 Seismic Refraction Surveys from c. 1.5km offshore to c.1.5km onshore are in planning. Surveys involve use of geo/hydrophones laid out in a streamer formation on the seabed with a seismic source emitting a signal and the 'phones recording returning signals. Allows interpretation of sub-bottom geology for HDD planning. No ML submissions or exemption notifications are proposed as the surveys do not constitute either a deposit or removal. Crown Licence SSL is required and EPS RA and JNCC MNR will be notified. EPS RA underway, awaiting finalisation. MMO wildlife team to be contacted depending on the outcome of EPS RA work. Unlikely to require a licence.
- 2023 SAC extension benthic campaign successfully completed in late March. Results
  to be used to help inform the development of compensation proposals. Results expected August/Sept. RWE are also working with NE/Cefas to bring Poseidon data into this
  workstream also.
- 2024 Array Area Geophysical and Geotechnical Campaigns Discussion around timing and procurement ongoing potential for geophysical to be delayed to 2025.
- Shipping and navigation The vessel "Karima" completed the first survey of the ECR platforms location on 7th Feb to ensure compliance with MGN 654. The survey is intended to be repeated in the summer.
- Aerial Monthly aerial surveys to collate ornithology and marine mammal data concluded in February which represented 24 months of data collection. The Year 1 data has been analysed to feed into the PEIR assessments, with draft outputs presented at the Ornithology ETG meeting on 7th Feb. Year 2 data analysis is ongoing and is intended to be presented at ETG meetings this Autumn in advance of ES submission.
- Fishing Gear Scouting No imminent plans for further fishing gear scouting surveys this year as robust data set collected throughout 2022. Considering repeating the array surveys this winter to provide an update on activity following the implementation of the DB SAC fishing Byelaw. European port visits have been completed and information collated to feed into PEIR assessments.
- Metocean buoys Metocean buoys (deployed in March 2022) remain in situ within the DBS East and West array sites. A variation request was submitted on 15/02 and MMO have requested further information on the recovery methodology. ACTION: AC to respond to LA e-mail.

#### **HRA**

HRA screening report - revision taking into account comments already received to be issued with PEIR.

4 Actions All

•



- HP to add potential May dates to existing Doodle for face-to-face in London. To include an introduction to offshore wind farms.
- AC to respond to LA e-mail
- HP to send collated Meeting Minutes to ensure new Case Manager/Officer have access to all information.



DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING				
Meeting with:	Marine Ma	ınagement Organisatio	on	
Ecodoc Ref:	004814970-01			
Location:	Holiday Inn London - Bloomsbury, Coram Street, London, WC1N 1HT			
Start Time of Meeting:	11:00	Date of Meeting:	24/05/23	
Attendees	Initials	Ro	ole & Organisation	
	AC	Offshore Consents M	anager, DBS	
	DB	Offshore Consents M	anager, DBS	
	HP	Consents Intern, DBS		
	ZT	Marine Licensing Case Manager, MMO		
	LA	Marine Licensing Case Officer, MMO		
	HC	Associate Director, RHDHV		
	CC	Marine Environmenta	al Consultant, RHDHV	
<u>Apologies</u>	Initials	Role & Organisation		
	PB	HRA Manager, DBS		
Meeting Objective(s):	1. We 2. Off 3. Pro 4. Off 5. Off 6. HR 7. MM	oject update: Icome and Introduction shore Wind Overview iject Update shore Completed Surve shore Upcoming Surve A 10 Update B/Discussion Points	eys	

Item	Description/ Discussion	Presenter
1	Outstanding actions	HP
	N/A	
2	Offshore Wind Overview	HP
	HP presented the overview of offshore wind, introducing likely project infrastructure and installation methods.	



3	Project Update	HP / HC
	No change from previous meeting. Continues as was with key milestones over the next 12 months continuing to be PEIR in early June 2023 and DCO submission in early 2024.	
	<ul> <li>Consultation</li> <li>DBS is on track to consult on PEIR between 6<sup>th</sup> June and 17<sup>th</sup> July 2023, including a series of public exhibition events and webinars.         It is intended that DBS will undertake a post-PEIR, pre-ES consultation on environmental assessment work in Autumn 2023.     </li> </ul>	
4	Offshore Completed Surveys	AC
	<ul> <li>Shipping and Navigation</li> <li>Offshore Array: Three vessel traffic surveys were conducted, consisting of two winter surveys (14 days at each array area in January/February 2022 and October/November 2022) and one summer survey (14 days at each array area in July 2022).</li> <li>Offshore ECR: First survey of the ECR platforms potential location completed in February 2023. Summer survey due to mob early June 2023.</li> </ul>	
	<ul> <li>Fishing Gear Scouting</li> <li>Fishing gear scouting surveys conducted cover the offshore export cable corridor and array areas over spring</li> <li>Guard Vessel Observations have also been undertaken in array and export corridor sections.</li> </ul>	
	58 station benthic survey successfully completed March 23 across the northern boundary of SAC. Lab analysis to commence shortly with reporting estimated for late August/Sept. Data arising to be considered alongside data being acquired for Poseidon project to allow further consideration of benthic compensation options.	
	Firds and Mammals     Two years of aerial surveys completed in Feb 2023. The Year 1 data has been analysed to feed into the PEIR assessments, with draft outputs presented at the Ornithology ETG meeting on 7th Feb. Data analysis in progress for the full two years to calculate species abundances and densities to inform subsequent CRM modelling for ES	
	Metocean buoys  Metocean buoys (deployed in March 2022) have been removed with notification delivered 18/05.	
5	Offshore Upcoming Surveys	DB
	2023 Geotechnical Campaign	<del>_</del>



7	<ul> <li>With the PEIR for consultation.</li> <li>MMO Update</li> <li>Natural England &amp; the Environment Agency have reduced capacity at the moment and often request 2/3 week extensions on consultations. MMO will work to draft the deep borehole grouting ML in parallel with consultation. However, the ML case may need to go on hold.</li> <li>MetOcean buoys Variation withdrawn due to successful removal as of 11/05.</li> <li>Geophys 2023 survey exemption not required as equipment always tethered to vessel (temporary placement of equipment). Scientific instrument exemption would be option, this is for the project to decide.</li> <li>There are currently ongoing discussions on piling/UXO. The MMO will provide</li> </ul>	ZT/LA		
6	HRA  CC presented HRA slides and confirmed that the HRA Screening Report will be issued with the PEIR for consultation.	HC / CC		
	<ul> <li>Shipping and navigation         <ul> <li>The vessel "Karima" to complete another ECR survey of potential platform locations. The survey will take place in summer.</li> </ul> </li> <li>2024 Array Area Geophysical and Geotechnical Campaigns         <ul> <li>Discussion around timing and procurement ongoing – potential for geophysical to be delayed to 2025.</li> </ul> </li> </ul>			
	Surveys from c. 1.5km offshore to c.1.5km onshore are in planning. Surveys involve use of geo/hydrophones laid out in a streamer formation with a seismic source emitting a signal and the hydrophones recording returning signals. Allows interpretation of sub-bottom geology for HDD planning. No ML submissions or exemption notifications are proposed as the surveys do not constitute either a deposit or removal. Crown Licence SSL is required and EPS RA and JNCC MNR will be notified. EPS RA underway, awaiting finalisation. MMO wildlife team to be contacted depending on the outcome of EPS RA work. Unlikely to require a licence.			



	compensation measures are still to be agreed and currently subject to ongoing confidential discussions. These matters are still to be determined.  • LA confirmed that MMO will coordinate consultation with Cefas, so no requirement for direct contact from DBS.	
8	Actions	
	DBS to notify the MMO when PEIR goes live	
	MMO to keep DBS informed on borehole grouting MLA updates	



	DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING					
Meeting with:	Meeting with: Marine Management Organisation					
Ecodoc Ref:	0048617	22-01				
Location:	Online					
Start Time of Meeting:	15:00	Date of Meeting:	21/06/23			
Attendees	Initials	Ro	ole & Organisation			
	AC	Offshore Consents M	anager, DBS			
	DB	Offshore Consents Manager, DBS				
	ZT	Marine Licensing Case Manager, MMO				
	CC	Marine Environmental Consultant, RHDHV				
Apologies	Initials	Role & Organisation				
	LA	Marine Licensing Cas	se Officer, MMO			
	НС	Associate Director, RHDHV				
	HP	Consents Intern, DBS				
	PB	HRA Manager, DBS				
Meeting Objective(s):	1. Out 2. Pro 3. Sur 4. HR	10 Update				

Item	Description/ Discussion	Presenter
1	Outstanding actions	AC
	DBS to notify the MMO when PEIR goes live - Closed, CC notified via email.	
2	Project Update	AC / DB
	No change from previous meeting. Continues as was with key milestones over the next 12 months continuing to be PEIR consultation to mid-July 2023 and DCO submission in early 2024.	



#### Consultation DBS' statutory PEIR consultation period is ongoing and is due to end 17th July 2023, including a series of public exhibition events and webinars. ZT confirmed that the DBS PEIR had been issued to Cefas, with consultation running to 30<sup>th</sup> June. ZT advised that the formal PEIR consultation notification letter had not been received. Post-meeting note: letter issued to Laura Ashforth and Tracey Champney on 6<sup>th</sup> June. DBS records updated to include ZT going forward. It is intended that DBS will undertake a post-PEIR, pre-ES consultation on environmental assessment work in Autumn 2023. DBS to issue note on preferred cable corridor for submission to relevant ETG members in the coming weeks. MMO to be included in the consultation as a matter of course, with an opportunity to respond provided **Survey Activity** 3 DB/AC 2023 Geotechnical Campaign • EXE/2023/00032 for shallow boreholes, vibrocores and CPTs - The Voe Vanauard mobilised in early June to undertake CPTs and Vibrocores, with the Normand Mermaid due to mobilise later this week. Precision 1 has completed a full fishing gear scouting survey and will remain on site to support nearshore operations where required. MLA/2023/00088 for grouting of deep boreholes - advertisements and notifications given as required and consultation closed. Queries opened 16/6/23 responded to by DBS 20/6/23. ZT confirmed that LA has commenced drafting of ML and they are awaiting a response following a request to Cefas for the bentonite guery to be closed out via e-mail rather than formal second consultation. Post-meeting note: Cefas has requested a full 20-day consultation. A response as early as possible would be appreciated to avoid any delay to the survey. **2023 Seismic Refraction** Onshore and intertidal works are due to commence 27th June 2023. The date of commencement for offshore works is currently unknown with potential to take place in 2024. Works are not licensable and the EPS Risk Assessment concluded that an EPS licence is not required (assuming works are complete this summer; to be updated and re-issued if postponed into next vear). Shipping and navigation The vessel "Star of Hope" mobilised on the 17th June 2023 to complete a 14day vessel traffic survey of potential ECR platform locations. 2024 Array Area Geophysical and Geotechnical Campaigns Discussion around timing and procurement ongoing - potential for geophysical to be delayed to 2025. ZT requested full survey overview - see Appendix 1.



4	HRA	AC
	The Habitat Regulations Assessment Screening Report has been issued as an additional Technical Report alongside the PEIR consultation for comment.	
	MMO having conversations around compensation and how this could potentially be incorporated into the dML. TCE pulling together a plan, but yet to be shared.	
5	MMO Update	ZT
	N/A	
6	AOB  MMO finance team have confirmed PO details have been updated.	All
	<ul> <li>Actions</li> <li>AC to issue minutes before 10am 27<sup>th</sup> June</li> <li>MMO keen to see draft dML in advance of DCO application submission if possible, particularly for early sight of how compensation measures may have been included. AC to raise internally and review programme to feedback on when this may be available.</li> </ul>	



Survey	Loca- tion	Activity	Licence Number	Noise Regis- try En- try	EPS Risk Assess- ment	Vessels	Estimat- ed Start Date	Estimat- ed End Date
Geotech	Export cable corridor	Vibrocoring	EXE/2023/00032	No	NA	Voe Van- guard and Normand Mermaid	Jun-23	Aug-23
Geotech	Export cable corridor	Cone Penetra- tion Tests	EXE/2023/00032	No	NA	Voe Van- guard and Normand Mermaid	Jun-23	Aug-23
Geotech	Export cable corridor	Borehole acquisition (to 6m deep)	EXE/2023/00032	No	NA	TBC	Jul-23	Jul-23
Geotech	Export cable corridor	Borehole acquisition (to 30m deep)	EXE/2023/00169	No	NA	TBC	Jul-23	Jul-23
Geotech	Export cable corridor - up to c.2km from landfall	Borehole back- filling	MLA/2023/0008 8	No	NA	TBC	Jul-23	Jul-23



Survey	Loca- tion	Activity	Licence Number	Noise Regis- try En- try	EPS Risk Assess- ment	Vessels	Estimat- ed Start Date	Estimat- ed End Date
Geophys	Export cable corridor - up to c. 2km from landfall	Seismic refraction surveying	NA	Yes - in due course	Completed - deemed not licensa- ble and no impact to SNS SAC	TBC	TBC Q4 2023	TBC Q4 2023
Fishing Gear Scouting Survey	Export cable corridor	Visual observa- tions of static fishing surface marker buoys	NA	NA	NA	Precision 1	May-23	Aug-23
Shipping and Navi- gation Survey	Export cable corridor - plat- form area of search	Visu- al/radar/AIS survey of ship- ping activity	NA	NA	NA	Star of Hope	Jun-23	Jul-23



		BANK SOUTH PROJECT	CTS	
Meeting with:	Marine Ma	anagement Organisati	on	
Ecodoc Ref:	0049430	74-01		
Location:	Online			
Start Time of Meeting:	15:00	Date of Meeting:	23/08/23	
Attendees	Initials	R	ole & Organisation	
	AC	Offshore Consents Manager, DBS		
	DB	Offshore Consents Manager, DBS		
	HP	Consents Manager, DBS		
	PB	HRA Manager, DBS		
	CC	Marine Environmental Consultant, RHDHV		
	ZT	Marine Licensing Case Manager, MMO		
	LA	Marine Licensing Case Officer, MMO		
Meeting Objective(s):	1. Ou 2. Pro 3. Sur 4. HR	10 Update		

Item	Description/ Discussion	Presenter
1	Outstanding actions	AC
	MMO keen to see draft dML in advance of DCO application submission if possible, particularly for early sight of how compensation measures may have been included.	
	AC: Draft dML time frame still to come as we're in the process of updating the programme. It would be available at least one month prior to submission, but will confirm the earliest a draft will be available ASAP.	
2	Project Update	
	Programme update  A PEIR consultation response review is ongoing in order to feed into ES design freeze and assessments. Intention is for the comments to be addressed	



through the next round of ETG meetings where applicable, but separate responses and/or meetings can be arranged if anything falls outside of these.

Programme review recently concluded with RHDHV (Lead EIA consultants)
which pushed DCO submission back slightly to end March 2024. Wider project
programme undergoing subsequent update to ensure other external support is
aligned.

#### Consultation

- DBS will undertake post-PEIR, pre-ES ETG consultations on environmental assessment work in Autumn 2023 (Sept-Oct). Invites are currently being issued.
- A series of in-ES/in-HRA drafting ETG consultations will be held a few months later (Oct-Dec). Dates and arrangements to be circulated in the near future.
- Stakeholder Engagement Programme has been updated and re-issued. Will be updated with actual ETG dates and re-circulated shortly.
- DBS drafting preferred cable corridor note for submission to relevant ETG members in the coming weeks. MMO to be included in the consultation as a matter of course, with an opportunity to respond provided.
- CC queried how Cefas invites to ETGs should be managed going forward. ZT confirmed that all Cefas involvement to be managed via the MMO. ZT: RHDHV to specify which invites should be forwarded to Cefas as time will be charged. ACTION: MMO to forward invites on benthic and intertidal (which will include fish and shellfish) & MPP to Cefas teams.

HP / DB

#### 3 Survey Activity

#### 2023 Geotechnical Campaign

- EXE/2023/00032 for shallow boreholes, vibrocores and CPTs Offshore survey operations have now completed. Licensable works (i.e. grouting of boreholes; L/2023/00249/1) finished on 17/08. Completion notification issued 21/08 on demobilisation of the offshore vessels. All ML conditions discharged. The local MMO office have been in touch regarding an inspection. DBS provided potential dates, but awaiting confirmation of inspection meeting.
- Precision 1 completed fishing gear scouting and guard vessel duties throughout the survey and has now demobilised in accordance with offshore survey operation completion.

#### **2023 Seismic Refraction**

The date of commencement for offshore works is currently unknown with potential to take place in 2024. Works are not licensable and the EPS Risk Assessment concluded that an EPS licence is not required (assuming works are complete this summer and based on previous method; to be updated and re-issued if postponed into next year and methods alter).

#### 2024 Array Area Geophysical and Geotechnical Campaigns

• Discussion around timing and procurement ongoing – potential for geophysical to be delayed to 2025.



5
4



<ul> <li>ZT to see whether dual PO will be feasible.</li> <li>HC is now on maternity leave, CC as main point of contact for RHDHV.</li> </ul>	
Actions	
MMO to forward invites on benthic and intertidal (which will include fish and	
shellfish) & MPP to Cefas teams.	
<ul> <li>ZT to see whether dual PO will be feasible.</li> </ul>	
AC to provide updates on DML timelines including when a draft will be provided.	



DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING				
Meeting with:	Marine Ma	anagement Organisatio	on	
EcoDoc Ref:	0049731	18-01		
Location:	Online			
Start Time of Meeting:	16:00	Date of Meeting:	09/10/23	
Attendees	Initials	Ro	ole & Organisation	
	AC	Offshore Consents Manager, DBS		
	DB	Offshore Consents Manager, DBS		
	HP	Consents Manager, DBS		
	CC	Marine Environmental Consultant, RHDHV		
	ZT	Marine Licensing Case Manager, MMO		
	LC	Marine Licensing Case Officer, MMO		
1. Out 2. Pro 3. Sur 4. HRA		10 Update		

Item	Description/ Discussion			
1	Outstanding actions			
	Draft dML time frame still to come as we're in the process of updating the programme. It would be available at least one month prior to submission, but will confirm the earliest a draft will be available ASAP.			
2	Project Update			
	<ul> <li>Programme update</li> <li>The first round of ETG meetings have concluded, separate meetings can be arranged if needed.</li> <li>A programme review is currently ongoing with RHDHV (Lead EIA consultants).</li> <li>ZT - Are Cefas being included separately in stakeholder engagement tracker?</li> <li>CC - Yes they are split out in the current draft. Minutes for recent ETGs to be issued ASAP.</li> </ul>			



	<ul> <li>Consultation</li> <li>A series of in-ES/in-HRA drafting ETG consultations will be held in the coming months. Dates and arrangements to be circulated in the near future.</li> <li>Stakeholder Engagement Programme is currently under review, DBS will issue a revised Stakeholder Engagement Programme in the coming weeks.</li> <li>DBS' preferred cable corridor note for submission to relevant ETG members was issued 12/09.</li> <li>AC - Will MMO be submitting response to this note by 17<sup>th</sup> October deadline?</li> <li>ZT - Looking good to issue for deadline, no major concerns raised so far.</li> </ul>	
3	Survey Activity	HP / DB
	<ul> <li>Procurement and planning are continuing, although the program remains unfixed. Work has commenced on the licence application with an application being opened on MCMS. We are awaiting a method from the team before we can progress any further.</li> <li>2023/24 Seismic Refraction         <ul> <li>The date of commencement for offshore works is currently unknown with potential to take place in 2024. Works are not licensable and the EPS Risk Assessment concluded that an EPS licence is not required (assuming works are complete this summer and based on previous method; to be updated and re-issued if postponed into next year and methods alter).</li> </ul> </li> <li>2024 Array Area Geophysical and Geotechnical Campaigns         <ul> <li>Discussion around timing and procurement ongoing – potential for geophysical to be delayed to 2025. Would be on array areas, not ECR.</li> <li>The Procurement ITT process is currently ongoing. There is still uncertainty in what the campaigns will look like currently, but it is beginning to look more certain that there will be some activity in 2024. We have requested noise parameters for any survey work to allow a Risk Assessment to be completed and may commence talking to third parties about SIMOPs in the near future. Works also not licensable.</li> </ul> </li> </ul>	
4	HRA	
	ZT - Nothing to raise at this stage from the MMO.	
5	MMO Update	ZT
	<ul> <li>ZT - ETG Process, had a meeting last week with Cefas, couple of requests/comments from this meeting:</li> <li>Can all ETG relevant documents (invites, minutes etc.) be forwarded to the direct Cefas inbox. Could invite dates be issued as quickly as possible, can't multiple hold dates indefinitely.</li> </ul>	



	<ul> <li>Could invites and slide packs be issued at least 2 weeks ahead of time if possible?</li> <li>May not be able to respond to queries directly on the call, will likely have to provide a written response to some queries after.</li> <li>A 20 day consultation process for response from Cefas/MMO following receipt of meeting minutes.</li> <li>MMO and Cefas would find it beneficial if any written responses received can be responded to and inform the next ETG.</li> <li>We welcome the Steering Group email issued today.</li> <li>AC - Thank you for the feedback, agree with all of these points. Looking to pull together a proposal for a potential steering group next week following a meeting with PINS.</li> <li>CC - Technical note regarding underwater noise queries from the fish and shellfish ETG is being finalised, to be issued shortly.</li> <li>ZT - Could this be issued alongside the minutes? Cefas currently have several ongoing consultations at present.</li> </ul>	
	CC – Yes this will be issued alongside the meeting minutes.	
6	No other business raised.	All
	<ul> <li>Actions</li> <li>RHDHV/RWE - Issue updated stakeholder engagement tracker once finalised.</li> <li>ZT emailed summary of requests on the call to the DBS team</li> </ul>	



DOGGER BANK SOUTH PROJECTS  MMO REGULAR MEETING				
Meeting with:	Marine Ma	anagement Organisatio	on	
EcoDoc Ref:	0050474	14-01		
Location:	Online			
Start Time of Meeting:	14:00	Date of Meeting:	17/01/24	
Attendees	Initials	Ro	ole & Organisation	
	AC	Offshore Consents Lead, DBS		
	DB	Offshore Consents Manager, DBS		
	HP	Consents Manager, DBS		
	CC	Marine Environmental Consultant, RHDHV		
	ZT	Marine Licensing Case Manager, MMO		
	LC	Marine Licensing Case Officer, MMO		
Regular project update:  1. Outstanding Actions 2. Project Update 3. Survey Activity 4. HRA 5. MMO Update 6. AOB				

Item	Description/ Discussion	Presenter
1	Outstanding actions	
	No outstanding actions from previous meeting.	
2	Project Update	CC / AC
	<ul> <li>Consultation</li> <li>CC provided an update regarding the upcoming ETGs and pre-ES stakeholder engagement plans, building on information already communicated through the stakeholder engagement programme.</li> <li>ZT - There is a delay with Marine Licence applications being allocated, recent DBS ones just been allocated this week, following submission in late November.</li> </ul>	
3	Survey Activity	HP / DB
	2024 Array Area Geophysical Campaign	



- Earliest start date April 2024, in DBS West Array Area
- EPS RA undertaken, no EPS licence required.

#### **2024 Geotechnical Campaign**

- Taking place within DBS West Array Area and ECR 'fan' area. Earliest start in May 2024, approximately four months work.
- Licensing to be split between exemptions, and two MLAs as relevant.

#### 2023/24 Seismic Refraction

 Due to take place in 2024. Crown Estate seabed survey licence already in place for the work, extension to the licence likely needed due to the later than planned start to the survey.

#### Geotech Licences MLA/2023/00508 & MLA/2023/00517

- Initial licence applications issued late November
- HP What additional info might be needed by the MMO and what timescales are expected for approval?
- ZT Application will be reviewed in next couple days, any updates should come through within the next week. Consultation likely to start by day 60 following the application, April would be a reasonable time to expect a determination of application. Add 30 days onto current programme.
- AC We do not have exact locations for survey samples, are these required? If exact locations are needed to progress the licences we may need determine alternative method to provide these locations. These, were required for last years surveys.
- ZT MMO may require these locations to determine underlying habitat and to assess impacts, if underlying seabed homogenous should not be an issue. Would need to know underlying habitat and the total area predicted to be affected within the habitat. Another option would be to process the HRA based on worst case assumptions, although may need exact locations to cover off navigation concerns.
- AC Seabed is homogenous within the survey area so should not be an issue.
- HP Would we know whether MMO require exact locations this in the next couple of weeks?
- ZT Depends on need for HRA and availability for a case officer to undertake this.

4	HRA	
	ZT - Nothing to raise at this stage from the MMO.	
5	MMO Update	ZT
	ZT - Following marine mammal ETG, we reiterate UXO licence point, concern how much noise will be within the SNS SAC.	
	AC – Any examples of projects that had to go through the process of splitting out the UXO investigation and detonation?	



	ZT – Think one of the Hornsea projects has gone through this process already. Would it be beneficial to provide example conditions?	
	AC – Any examples would be helpful if easy to provide. Queries around UXO regarding how this would play out in practice, with extended timeframes between investigations and detonations. If there is another project that has already gone through this it would be useful to see that ML.	
	ZT - Will check to see if any streamlining has taken place on other projects.	
	AC – Be interested to talk to a developer team to see how that has gone on their side. Potential H&S risk to identifying UXO and leaving it for a long period of time, would marking be required? Was a matter of days between investigation and detonation on Triton Knoll. Example licences would be useful.	
	ZT - Will ask about this, on the Hornsea 2 DCO so can provide specific contacts	
	ZT – Want to reiterate our thanks for sending the SIP/MMMP ahead of the ETG, streamlined the review process.	
	Post-meeting note: ZT confirmed that no Projects have completed UXO investigations and detonations under separate licences to date, but will endeavour to keep DBS team updated.	
6	AOB	All
	<ul> <li>No other business raised.</li> </ul>	



# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

Appendix F4 - Mail Out Letter - Introductory Consultation

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	The second secon		Introductory
Document Number:	005028809-02	Contractor Reference Number:	N/A

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Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE



### Dogger Bank South RWE Renewables

Phone 0800 254 5459 Email dbs@rwe.com

Website www.rwe.com/doggerbank-

<u>south</u>

Swindon, 8th September 2022

#### Introduction to Dogger Bank South offshore wind farms

Dear Sir or Madam.

We are writing to introduce you to the Dogger Bank South (DBS) offshore wind farm projects which are under development off the North East coast of England. DBS is made up of two separate projects, both located over 100km offshore. The projects will make landfall at a location along the Holderness Coast and will connect into the national grid electricity network at a new National Grid substation located near Creyke Beck. You are receiving this letter as your address has been identified within our mailing radius and you could be impacted by the projects.

Engagement with local residents and businesses is important to us so we have arranged for an 'Introductory Consultation' which opens on 9<sup>th</sup> September 2022 and runs until 14<sup>th</sup> October 2022. This early stage consultation will give you the opportunity to find out more information on the project proposals, ask any questions and provide any comments or feedback that you may have. The consultation will involve a series of face to face events (detailed below) which are open to all to attend, these events will give you the chance to meet members of the project team and our team of experienced consultants. We have also developed an online consultation platform to enable those unable to attend the events in person the chance to view the proposals in detail.

#### **Public Consultations**

Our consultation materials will be available to view at the following locations at the times listed below:

Date	Time	Location
27 <sup>th</sup> September 2022	2pm - 6pm	<b>Skipsea Village Hall</b> , Bridlington Rd,
		Skipsea, Driffield YO25 8TJ



Page 2

28 <sup>th</sup> September 2022	3pm – 7pm	Beverley Memorial Hall, 73-75 Lair-
		gate, Beverley, HU17 8HN
7 <sup>th</sup> October 2022	3pm – 7pm	Catwick Village Hall, Rowpit Lane,
		Riston Road, Catwick, Beverley, HU17
		5PR
8 <sup>th</sup> October 2022	11am - 3pm	Beverley Memorial Hall, 73-75 Lair-
		gate, Beverley, HU17 8HN

Our DBS Fact Sheet and the first edition of our community newsletter are now available to view online at <a href="www.rwe.com/doggerbanksouth">www.rwe.com/doggerbanksouth</a>. The newsletter contains all of the information you need to enable you to take part in and respond to our Introductory Consultation.

Due to GDPR legislation and for environmental reasons, we will not be sending hard copy newsletters to all properties within our mailing radius. If you would like to receive hard copies of future newsletters, please send your name and address to the team using the email address at the top of this letter and we will add you to our mailing list. Alternatively, if you would like to receive electronic updates from the project directly to your inbox, please email the team with your name and email address.

If, at any point, you have any queries or concerns relating to DBS, please do not hesitate to contact the team using the contact details at the top of this letter.

Yours faithfully,

Dogger Bank South Project Team



# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

Appendix F5 - Introductory Community Consultation Questionnaire

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F5 - Introductory Community Consultation Questionnaire		nmunity Consultation
Document Number:	005028810-02	Contractor Reference Number:	N/A

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Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE



# Dogger Bank Offshore Wind Farms Introductory Consultation: Questionnaire

#### The consultation - your response can make a difference

We understand that people living and working locally have a wealth of knowledge and may be able to identify issues affecting the potential sites for our onshore electrical infrastructure that public bodies are not aware of. The purpose of this questionnaire is to capture that knowledge and to ask you to identify any issues we should take into account in our site selection process. We are also asking for your opinions on where the infrastructure could be located from our short list of potential sites.

The consultation will enable you to have your say on:

- The possible sites / zones where the proposed electrical infrastructure relating to the Dogger Bank Offshore Wind Farms may be constructed.
- General comments on our project proposals.

#### How to participate

Please answer as many of the questions in this questionnaire as you feel able to. You may respond for any of the shortlisted zones. Please note to which zone your questionnaire refers to on the first page of the questionnaire.

You may fill in more than one questionnaire per zone by continuing on a separate sheet or by requesting further copies of this questionnaire using the contact details on the back page of this document. You can also complete a questionnaire online by downloading the editable version of the questionnaire from: www.rwe.com/doggerbanksouth

#### How to respond

The consultation runs from 9th September until the 14th October 2022. Please note that consultation responses must be received by 5pm on 14th October 2022.

Your comments may be made public in a consultation report, but will remain anonymous. The report will record comments received and explain how the views of the public, consultees and stakeholders have been considered in developing the final project design. This report will become part of our planning application.

Please return hard copy questionnaires to our Freepost address, **FREEPOST DBSOWF**. Electronic copies can be returned via email to **dbs@rwe.com** 

If you would like this questionnaire in larger print or in another format, please contact us on: 0800 254 5459

responding to. **Onshore Substation** Landfall Zone 1 - Yellow Zone Zone 8 - Orange Zone Zone 4 - Purple Zone Zone 9 - Pink Zone **Cable Route** Zone 5 - Blue Zone Cable Corridor General **Questionnaire Questions** We will design our electrical infrastructure to minimise impacts on local people and the environment. We need your help to make sure that we understand everything about each zone: 1. Do you know of any properties, rights of way or other activities that could be affected that we may not know about or that you are concerned about? 2. Are there any current uses or past uses that you think we should be made aware of, for example uses that might have resulted in contamination of the land and made it unsuitable for development? 3. Are there any relevant ecological or nature conservation issues that we should be made aware of?

IMPORTANT: Please tick the relevant box below to confirm which zone you are

•	Are there any cultural heritage features (such as historic buildings, ancient monuments or other important archaeological features) that you are concerned about?
	^
_	Are you aware of any history of flooding from any source that you want to tell us about?
• •	
• •	
•	Do you have any other comments you would like to make on our project proposals?
• •	
• •	

## **Your details** To help us collate the information you have provided can you please enter your postcode here: Postcode We may like to contact you about your answers if we need more information. If you are happy for us to do this, please provide your contact details in block capitals below: Name \_\_\_\_\_ Address Telephone E-mail \_\_\_\_\_ All personal details provided will be held in accordance with the Data Protection Act 2018 and will not be passed on to any third parties. We may be required to show how we have considered your responses in a Consultation Report, submitted with our planning application. Your responses may therefore appear in this report, which will become a publicly available document. Thank you very much for taking the time to complete this guestionnaire. Please return it to our Freepost address (listed on page 1) along with questionnaires for any of the other zones you would like to respond to the consultation on. **Contact us Email:** dbs@rwe.com **Telephone:** 0800 254 5459 Web: www.rwe.com/doggerbanksouth

#### Post:

Dogger Bank South Offshore Wind Farms Windmill Hill Business Park Whitehill Way Swindon Wiltshire SN5 9PB



# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

Appendix F6 - Introductory Community Consultation Leaflet

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F6 - Introductory Community Cor Leaflet		nmunity Consultation
Document Number:	005028811-02	Contractor Reference Number:	N/A

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01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE



# Introducing

# Dogger Bank South Offshore Wind Farms



#### Overview

The Dogger Bank South (DBS) offshore wind farm projects are located more than 100 km off the northeast coast of England at the shallow offshore area of the North Sea known as Dogger Bank. DBS is made up of two separate sites, DBS East and DBS West.

Each project could have an installed capacity of up to 1.5 GW meaning that together, they could generate enough clean renewable energy to power up to 3.4 million typical UK households per year.

DBS East and DBS West are owned by RWE which is progressing the development phase of the projects.

The number of turbines for each site has not yet been determined, but the design allows for up to 300 wind turbines (a maximum of 150 for each project). The final number will be dependent on the size of turbines eventually installed. It is possible that more than one wind turbine model could be used across the two sites.

# The Story So Far

RWE was awarded the status of 'preferred bidder' for the two adjacent sites which make up DBS in The Crown Estate's Offshore Wind Leasing Round 4 tender process in February 2021. Following the conclusion of the Habitats Regulations Assessment process in July 2022, The Crown Estate announced its intention to enter into Agreements for Lease with RWE, giving seabed development rights for the sites.

Although the projects are at a very early stage, offshore and onshore surveys are already underway as part of the development process, including metocean data collection and a series of geophysical and environmental surveys.

#### **Grid Connection**

National Grid ESO, the UK electrical system operator, has recently completed a Holistic Network Design (HND) process with the aim of designing a future-proofed solution for the national grid which allows for planned offshore wind expansion in a way which is economical and efficient, and considers the impact on the environment and local communities.

The results of the HND process were published in July 2022 and identified that connections to the national grid would be made in the vicinity of a newly proposed national grid substation at the location known as Creyke Beck 1. The DBS substations will be located near to this new site.

With the offshore array area and grid connection locations established, RWE has focused on identifying suitable offshore and onshore export cable corridors, a cable landfall location and a location for the onshore substations for the projects.

## **Next Steps**

The next steps will be to undertake the necessary development and consenting activities in accordance with current UK government guidelines, which will include comprehensive consultation and determining each project's exact capacity once operational.

Local residents will have the opportunity to comment on the wind farm proposals throughout the development phase, and the project team is due to launch a non-statutory consultation in late Summer/Autumn 2022. Feedback received from the consultation, along with data gathered from surveys and discussions with statutory bodies, will help inform the designs for each project. Further details on the upcoming consultation activities, which focus on site selection for the new onshore substations, will be available on our website shortly.

Due to the DBS projects being classified as Nationally Significant Infrastructure Projects (NSIP), we are required to submit an application for development consent to the Planning Inspectorate which will be managed via the NSIP process. Going forward, the two sites will be developed together with the aim of submitting a planning application for development consent in 2024.



Two projects
make up Dogger Bank South
Offshore Wind Farms

Each site is

500 km² in size



DBS East and DBS West could generate enough renewable electricity to power up to

3.4 million UK households per year





The DBS sites were awarded as part of The Crown Estate's Offshore Wind Round 4 auction process

The projects' design allows for up to

150 turbines at each of the two sites



have an installed capacity of up to 3 GW



# **Contact Us**

Phone: 0800 254 5459 Email: dbs@rwe.com Mail: FREEPOST DBSOWF



# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

Appendix F7 - Introductory Consultation Email to Stakeholders

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 

**Unrestricted** 



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F7 - Introductory Consultation Email to Stakeholders		
Document Number:	005028813-02	Contractor Reference Number:	N/A

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02	June 2024	Final for DCO Application	RWE	RWE	RWE

#### Unrestricted



Member of Parliament for Beverley and Holderness C/O Office Manager House of Commons London

#### Dogger Bank South RWE Renewables

Phone 0800 254 5459 Email <u>dbs@rwe.com</u>

Website <u>www.rwe.com/doggerbank-</u>

<u>south</u>

Sent via email to:

SW1A OAA

Swindon, 08/09/2022

#### Introduction to Dogger Bank South offshore wind farms

Dear

I am writing to introduce you to the Dogger Bank South (DBS) offshore wind farm projects which are under development off the North East coast of England. DBS is made up of two separate projects, both located over 100km offshore. The projects will make landfall at a location along the Holderness Coast and will connect into the national grid electricity network at a new National Grid substation located near Creyke Beck in The East Riding of Yorkshire.

Engagement with local stakeholders is important to us so we have arranged for an 'Introductory Consultation' which will open on 9<sup>th</sup> September 2022 and run until 14<sup>th</sup> October 2022. This early stage consultation will give local people and businesses the opportunity to find out more information on the project proposals, ask any questions and provide any comments or feedback that they may have.

We have written to over 19,000 addresses locally to advise them of the consultation and how they can respond and give their views and feedback on our proposals. Letters have been sent to all addresses with postcodes located within 1.5km of our shortlisted potential onshore substation and landfall locations and within 1km of our proposed onshore cable corridor.

We understand that local residents and businesses will have a lot of questions and concerns which is why we have launched our Introductory Consultation as a means of communicating our project proposals and giving local people the opportunity to provide feedback to shape our development. The consultation will involve a series of face to face events which are open to all to attend, these events will give residents the chance to meet members of the project team and our team of experienced consultants. We have also developed an online consultation platform to enable those unable to attend the events in person the chance to view the



Page 2

documentation provided as part of the consultation in detail and in their own time. The details for the face to face events are detailed below:

Date	Time	Location
27 <sup>th</sup> September 2022	2pm - 6pm	<b>Skipsea Village Hall</b> , Bridlington Rd,
		Skipsea, Driffield YO25 8TJ
28 <sup>th</sup> September 2022	3pm – 7pm	Beverley Memorial Hall, 73-75 Lair-
		gate, Beverley, HU17 8HN
7 <sup>th</sup> October 2022	3pm - 7pm	Catwick Village Hall, Rowpit Lane,
		Riston Road, Catwick, Beverley, HU17
		5PR
8 <sup>th</sup> October 2022	11am - 3pm	Beverley Memorial Hall, 73-75 Lair-
		gate, Beverley, HU178HN

Our DBS Fact Sheet and the first edition of our community newsletter are now available to view online at <a href="www.rwe.com/doggerbanksouth">www.rwe.com/doggerbanksouth</a>. The newsletter contains all of the information required to take part in and respond to our Introductory Consultation.

Due to GDPR legislation and for environmental reasons, we have taken the decision to not distribute hard copy newsletters to all properties within our mailing radius. We have, however, offered hard copy newsletters to Parish Councils and if they would like copies for their local community and to anyone who wishes to receive one, they just need to contact us and we can arrange. If you would like to receive hard copies of future newsletters, please let me know, otherwise I will continue to share electronically with you.

We would really appreciate the opportunity to meet with you to introduce our proposals and discuss any questions or concerns you may have. If this would be of interest to you, please do get in touch and we can organise a convenient time for us to meet either virtually or face to face.

If, at any point, you have any queries, please do not hesitate to contact me by emailing

Yours sincerely,

Projects Lead - Dogger Bank South



Member of Parliament for East Yorkshire 18 Exchange Street Driffield East Yorkshire YO25 6LJ

Sent via email to:

#### Dogger Bank South RWE Renewables

Phone 0800 254 5459 Email dbs@rwe.com

Website www.rwe.com/doggerbank-

<u>south</u>

Swindon, 08/09/2022

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We have written to over 19,000 addresses locally to advise them of the consultation and how they can respond and give their views and feedback on our proposals. Letters have been sent to all addresses with postcodes located within 1.5km of our shortlisted potential onshore substation and landfall locations and within 1km of our proposed onshore cable corridor.

We understand that local residents and businesses will have a lot of questions and concerns which is why we have launched our Introductory Consultation as a means of communicating our project proposals and giving local people the opportunity to provide feedback to shape our development. The consultation will involve a series of face to face events which are open to all to attend, these events will give residents the chance to meet members of the project team and our team of experienced consultants. We have also developed an online consultation platform to enable those unable to attend the events in person the chance to view the



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We would really appreciate the opportunity to meet with you to introduce our proposals and discuss any questions or concerns you may have. If this would be of interest to you, please do get in touch and we can organise a convenient time for us to meet either virtually or face to face.

If, at any point, you have any queries, please do not hesitate to contact me by emailing

Yours sincerely,

Projects Lead - Dogger Bank South



Parish Clerk

Dogger Bank South RWE Renewables

Phone Email Website



Swindon, 05/09/2022

#### Introduction to Dogger Bank South offshore wind farms

Dear Sir or Madam.

I am writing to introduce you to the Dogger Bank South (DBS) offshore wind farm projects which are under development off the North East coast of England. DBS is made up of two separate projects, both located over 100km offshore. The projects will make landfall at a location along the Holderness Coast and will connect into the national grid electricity network at a new National Grid substation located near Creyke Beck. You are receiving this letter as your Parish Council has been identified as hosting or neighbouring our proposed onshore electrical infrastructure.

Engagement with local residents and businesses is important to us so we have arranged for an 'Introductory Consultation' which will open on 9<sup>th</sup> September 2022 and run until 14<sup>th</sup> October 2022. This early stage consultation will give you the opportunity to find out more information on the project proposals, ask any questions and provide any comments or feedback that you may have. The consultation will involve a series of face to face events (detailed below) which are open to all to attend, these events will give you the chance to meet members of the project team and our team of experienced consultants. We have also developed an online consultation platform to enable those unable to attend the events in person the chance to view the proposals in detail which will be available from 9<sup>th</sup> September and accessed via our website, <a href="https://www.rwe.com/doggerbanksouth">www.rwe.com/doggerbanksouth</a>.

#### Parish Council Drop-in Sessions and Public Exhibition

Our consultation materials will be available to view at the following locations at the times listed below. We have organised for each event to open for an hour prior to opening to the public and this time will be dedicated to Parish Councillors to attend to speak with members of the project



Page 2

team and view all of the information available. Parish Councillors are, of course, welcome to attend the public exhibitions if they would prefer.

Date	Time	Location
27 <sup>th</sup> September 2022	1pm - 2pm	Skipsea Village Hall, Bridlington Rd,
Parish Drop-in Session		Skipsea, Driffield YO25 8TJ
27 <sup>th</sup> September 2022	2pm to 6pm	Skipsea Village Hall, Bridlington Rd,
Public Exhibition		Skipsea, Driffield YO25 8TJ
28 <sup>th</sup> September 2022	2pm - 3pm	Beverley Memorial Hall, 73-75 Lair-
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8 <sup>th</sup> October 2022	10am - 11am	Beverley Memorial Hall, 73-75 Lair-
Parish Drop-in Session		gate, Beverley, HU17 8HN
8 <sup>th</sup> October 2022	11am - 3pm	Beverley Memorial Hall, 73-75 Lair-
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We have sent letters to over 19,000 local addresses to inform them of the consultation and how they take part. Due to GDPR legislation and for environmental reasons, we will not be sending hard copy newsletters to all properties within our mailing radius. If you would like to receive hard copy newsletters for your Parish, please let me know and I can arrange for this.

If, at any point, you have any queries or concerns relating to DBS, please do not hesitate to contact me using the contact details at the top of this letter.

Yours faithfully,

Communications & Stakeholder Manager Dogger Bank South RWE Renewables UK



# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

**Consultation Report** 

Volume 5

**Appendix F8 - Introductory Consultation Report** 

**June 2024** 

**Application Reference: 5.7** 

APFP Regulation: 5(2)(q)

**Revision: 02** 



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Consultation Report - Appendix F8 - Introductory Consultation Report		sultation Report
Document Number:	005028814-02	Contractor Reference Number:	N/A

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01	February 2024	Draft for PINS Submission	RWE	RWE	RWE
02	June 2024	Final for DCO Application	RWE	RWE	RWE

#### Unrestricted



# RWE Renewables UK Dogger Bank South Offshore Wind Farms

**Introductory Consultation Report** 

**June 2023** 

**Document Reference: 004820508** 

**Revision: 01** 

Pursuant to section 37(3)(c) and 37 (7) of the Planning Act

2003





Company:	RWE Renewables UK Dog- ger Bank South (West) Lim- ited and RWE Renewables UK Dogger Bank South (East) Limited	Asset:	Development
Project:	Dogger Bank South Off- shore Wind Farms	Sub Project/Package:	Consents
Document Title or Description:	Introductory Consultation Report		
Document Number:	004820508-01	Contractor Reference Number:	n/a

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Rev No.	Date	Status/Reason for Is- sue	Author	Checked by	Approved by
0.1	2 November 2022	First Issue	DB	EJ	
0.2	21 May 2023	Updated	EJ	СМ	CM
01	5 June 2023	Final	EJ	LR	CM



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# 1. Introduction

# 1.1. About the project

1.1.1. In February 2021, under the Crown Estate's (TCE) Offshore Wind Leasing Round 4 tender process, RWE was awarded the status of preferred bidder for two projects which make up Dogger Bank South (DBS), located in the Southern North Sea. The projects are known individually as DBS East and DBS West and will be located over 100 kilometres off the coast of north east England (see Figure 1).



Figure 1- Dogger Bank South Area Map

- 1.1.2. Each site is approximately 500km2 in size, and when combined, could generate enough electricity to power up to 3.4 million typical UK households with clean, green electricity each year. They will help to meet the UK Government's offshore wind and net zero targets.
- 1.1.3. Each of the Dogger Bank South projects will be served by its own project specific infrastructure, but infrastructure such as construction compounds will be shared where practicable to reduce impacts on communities and the environment.
- 1.1.4. This report summarises the approach to the introductory public consultation which was carried out between 9 September 2022 and 14 October 2022 including a summary of the responses received, as well as how the issues raised in those responses have been considered by the project.
- 1.1.5. For more information about the projects and to sign up to receive updates, please visit www.doggerbanksouth.co.uk or email: dbs@rwe.com.

# 2. Introductory consultation

2.1.1. The introductory consultation ran for six weeks from Friday 9 September 2022 to Friday 14 October 2022. All of the information that was part of the consultation was published on or before the first day of the consultation. The deadline for responses was midnight on 14 October 2022.

# 2.2. Consultation approach

- 2.2.1. The purpose of the consultation was to:
  - introduce the projects;
  - explain the site selection process and options for the substation zones and onshore cable corridor, and;
  - collect feedback on the proposals.
- 2.2.2. Invitations to participate in the consultation were sent to local residents, businesses and persons with an interest in the land (PILs), along with parish councils and elected representatives. Further details of how we engaged can be found in section 2 of this report.
- 2.2.3. As the projects were still in an early stage of development, there was limited technical detail available, however the information presented gave an understanding of the projects, and the geographical areas that they might affect.
- 2.2.4. The introductory consultation is outside of the requirements of the Planning Act 2008 and as such is referred to as a 'non-statutory' consultation. RWE considers it important to listen to local communities and was keen to receive early feedback on the proposals.
- 2.2.5. The next stage of consultation, which runs from Tuesday 6 June Monday 17 July 2023, will be statutory consultation and will fulfil the requirements of sections 42 through 48 of the Planning Act 2008. At this stage, more detailed designs will be provided along with the Preliminary Environmental Information Report (PEIR) for the Project.

# 3. Promoting the consultation

#### 3.1. Letters to local residents and businesses

- 3.1.1. Invitation letters including a map showing the DBS projects were sent via Royal Mail to approximately 19,000 residential and business addresses within a defined consultation area. The boundary for this consultation area was 1.5km from the proposed substation zones and landfall site options, and 1km from either side of the proposed cable route corridor. The consultation area was extended around smaller settlements bisected by the boundary.
- 3.1.2. A map showing the consultation area is included in Appendix A.

#### 3.2. Stakeholder notification

- 3.2.1. Emails were sent to notify the following groups of stakeholders in advance of the consultation launch to request feedback on the proposals:
  - Local MPs
  - Councillors
  - Parish Councils

#### 3.3. Technical consultation - statutory stakeholders

- 3.3.1. Technical consultation has been carried out with statutory stakeholders through separate expert topic groups which has helped to shape the projects and full details can be found in Chapter 7 Consultation of the PEIR. This consultation report focuses solely on the introductory public consultation.
- 3.3.2. Statutory stakeholders were informed via expert topic groups about the introductory consultation and were able to participate in the consultation as required. Feedback from these groups is detailed in PEIR Chapter 7 Consultation.

#### 3.4. Press release

- 3.4.1. A press release was issued at the start of the consultation to local and national newspapers and online media channels.
- 3.4.2. A copy of the press release can be found in Appendix B.

#### 3.5. Consultation website

3.5.1. A dedicated section of the DBS website was created where people could view the proposals in detail and complete the online consultation questionnaire.

#### 3.6. Consultation events

3.6.1. Four public consultation events were held during the consultation period. A total of 393 people attended the events as outlined in the table below.

Date	Time	Venue	Attendees
Tuesday 27 September 2022	2pm - 6pm	Skipsea Village Hall, Bridlington Road, Skipsea, YO25 8TJ	61
	3pm - 7pm		147
Friday 7 October 2022	3pm - 7pm	Catwick Village Hall, Rowpit Lane, Catwick HU17 5PR	53
Saturday 8 October 2022	11am – 3pm	Beverley Memorial Hall, 73 - 75 Lairgate, Beverley HU17 8HN	132

- 3.6.2. Each of the consultation events was open to parish councillors and elected members for one hour prior to opening to the public.
- 3.6.3. Attendees were able to view information about the projects on a series of display banners as well as having the opportunity to discuss the proposals with members of the projects team. In addition attendees were able to comment on the proposals via the consultation questionnaire feedback form.
- 3.6.4. Copies of the banners can be found in Appendix C. All materials presented at the consultation can also be found on the website: www.doggerbanksouth.co.uk

#### 4. Consultation feedback

### 4.1. Response channels

- 4.1.1. Feedback on the proposals is important to RWE and there were a number of channels for feedback to make the process as easy as possible.
- 4.1.2. The following methods were available for people to respond to the consultation:
  - A paper questionnaire was printed and made available at events;
  - A digital version of the questionnaire was available to complete online, linked from the consultation information pages;
  - A freepost address (Freepost DBS) was set up so people could send either the completed questionnaire or any other feedback to the projects team;
  - Feedback could also be emailed directly to the projects team via a dedicated email address: dbs@rwe.com.

# 4.2. Consultation questionnaire

- 4.2.1. The consultation questionnaire included six questions as outlined below. The purpose of the questions was to provide respondents with the opportunity to provide feedback based on key topics that would assist the projects in the development of the proposals.
- 4.2.2. Respondents were asked to identify which zone the response related to and it was possible for respondents to complete the questionnaire based on more than one zone. The zones were categorised by, Onshore substation options, Landfall options and the Cable route:

#### Onshore substation

- o Zone 1 Yellow Zone
- o Zone 4 Purple Zone
- o Zone 5 Blue Zone

#### Landfall

- o Zone 8 Orange Zone
- o Zone 9 Pink Zone

#### Cable route

- o Cable Corridor General
- 4.2.3. The questions covered key areas of interest and relevance as follows:
  - Question 1 Do you know of any properties, rights of way or any other activities that could be affected that we may not know about or that you are concerned about?

- **Question 2** Are there any current uses or past uses that you think we should be made aware of, for example uses that might have resulted in contamination of the land and made it unsuitable for development?
- **Question 3** Are there any relevant ecological or nature conservation issues that we should be made aware of?
- **Question 4** Are there any cultural heritage features (such as historic buildings, ancient monuments or other important archaeological features) that you are concerned about?
- **Question 5** Are you aware of any history of flooding from any source that you want to tell us about?
- Question 6 Do you have any other comments you would like to make on our project proposals?
- 4.2.4. A copy of the printed questionnaire can be found in Appendix D.

## 4.3. Consultation responses

- 4.3.1. A total of 65 consultation responses were received. Sixty were received during the consultation period. Two were received immediately after the deadline for responses had passed and one, from a parish council was received after a briefing meeting held on 1 November 2022. Two further late responses were received via the FREEPOST address. RWE has considered all responses, including those that were late.
- 4.3.2. Details from all 65 responses are included in section 5 of this report.
- 4.3.3. There were 6 responses from organisations and stakeholders:
  - Skipsea Parish Council
  - Rowley Parish Council
  - Skidby Parish Council
  - National Grid Ventures Ltd
  - The East Riding of Yorkshire and Kingston upon Hull Joint Local Access Forum
  - Beverley Ramblers Association
- 4.3.4. Of the remaining 59 responses, 5 were identified as Landowners or those with an interest in land (PILs), and one was from a parish councillor.

# 4.4. Analysis methodology

- 4.4.1. In order to analyse the feedback received, each item of feedback was read and the issues within it were separately listed. When two or more respondents raised a similar issue, it was listed as the same issue with a count of the number of times it was raised.
- 4.4.2. These issues were then considered on whether they related to the Environmental Impact Assessment (EIA) that is being undertaken or if they relate to other general categories. Each issue was assigned to the appropriate subject matter expert within the DBS projects team to consider and respond.
- 4.4.3. The analysis process is inherently subjective, and the number of times each issue is captured should be seen as indicative. When considering responses, more weight is applied to the content of an issue than the number of times it has been raised.

#### 4.5. Feedback methods used

4.5.1. The majority of responses were received at the consultation events. The second most common response method was email with several respondents scanning completed consultation questionnaires to send digitally. A similar number of respondents completed the questionnaire online. Three responses were returned via post.

# 4.6. Identifying information

4.6.1. For data protection purposes, information that could identify individual respondents has been redacted from the summarised issues. Where possible, localising but not identifying information (such as postcodes) has been used.

# 5. Comments and responses to issues raised

- 5.1.1. Many respondents provided detailed feedback on the information presented in the Introductory Consultation, as well as other local information on features along the proposed cable route options and near to the substation site options.
- 5.1.2. The comments fell into two categories:
  - General issues
  - Issues which fall within the EIA process

5.1.3. The themes and key comments/issues raised for each of these categories are shown in the tables below, along with an overview of how they have been considered by the project team.

Table 5.1 Overview of general issues raised during Introductory Consultation

Theme	Key comments/issues raised	Project team consideration
Consultation	<ul> <li>Comments about information published on the website and maps provided.</li> <li>Comments that the consultation was not well advertised, the opening times and project team answering questions at events.</li> <li>Requests to engage and keep parish councils, landowners and others informed.</li> <li>Requests for more specific information to be made available.</li> </ul>	<ul> <li>Comments on our consultation are welcomed and will be taken into account as we prepare our plans for the next stage of consultation.</li> <li>We will continue to engage with parish councils, landowners and the local community as we develop our project.</li> <li>We will publish updates on our project website www.doggerbanksouth.co.uk as well as newsletters at key project milestones.</li> </ul>
Coordination with other developers	Suggestions about using the same route and coordinating with other developers in the area.	We are in discussions with other developers working in the area and will work with them to minimise impacts on local communities where appropriate.
Engineering	Questions about the technology which will be used for the connection between the offshore wind farm and the national grid.	We are still considering the most appropriate technology to use. Further details will be published during statutory con- sultation.
Community benefits and gain	<ul> <li>Questions about the available of community grants.</li> <li>Suggestions and requests for DBS to fund improvements to local features and wildlife areas.</li> </ul>	We are considering a Community Benefits Package which will be focussed on skills and career opportunities.
General comments on substation sites/cable route op- tions	<ul> <li>Support/preference for substation zone 1.</li> <li>Support./preference for substation zone 4.</li> <li>Preference for corridor to east of Beverley.</li> <li>Concerns about the potential impacts on communities along the route and close to the substation sites, including Beverley, Skidby, Bentley and Skipsea.</li> <li>Request for other land options to be considered for the substation sites.</li> <li>Request for cables to be routed as far away from properties as possible.</li> </ul>	<ul> <li>Potential impacts on local communities have been part of our consideration in the site and route selection and we have sought to avoid built up areas as far as possible.</li> <li>The EIA process will further consider potential impacts and how they can be mitigated. Further information on this is set out within the PEIR published during statutory consultation.</li> </ul>
General comments on landfall site op- tions	Preference for landfall zone 9 as further from communities and village.	Potential impacts on local communities have been part of our consideration in the site and route selection and we have sought to avoid built up areas as far as possible.

Theme	Key comments/issues raised	Project team consideration
Specific land related comments	<ul> <li>Specific questions about the design of the underground cables and potential effects on local agriculture, including soils management and drainage systems.</li> <li>Concerns about effects from cables on agricultural machinery and GPS systems.</li> <li>Information on covenants on land near proposed site.</li> </ul>	<ul> <li>We will work closely with landowners and farmers to ensure we minimise any impact of our cables on land drainage, soils, equipment and other farming considerations.</li> <li>Covenants or restrictions on land are accounted for as part of our land referencing process.</li> </ul>
Construction	Questions about length of construction programme and working hours.	<ul> <li>We will work with the local authority to agree a construction management plan which will include details of proposed working hours.</li> <li>We publish more information on our construction programme during statutory consultation.</li> </ul>
Other general com- ments	<ul> <li>General statements of support for the projects.</li> <li>Caveated support for projects while expressing concern that about potential impact on the environment.</li> <li>General objections to the proposals.</li> </ul>	These comments were noted but given their general nature have not been specifically addressed. We continue to try to minimise impacts as part of the project design as included in the PEIR.

# Table 5.2 Overview of issues relating to EIA raised during Introductory Consultation

Theme	Key comments/issues raised	Project team consideration
Archaeology and cultural heritage	<ul> <li>Details of archaeological sites and scheduled monuments, local heritage assets and listed properties.</li> <li>Concerns about potential impacts on archaeological and heritage sites.</li> <li>Concerns about impact on historic woodland and common ground.</li> </ul>	We are aware of these archaeological and heritage sites and potential impacts to archaeological and cultural heritage sites will be considered as part of our archaeological and heritage impact assessments.
Coordination	Details of assets belonging to water, gas and energy asset owners.	We are aware of these assets and we will liaise with the asset owner as appropriate.

Theme	Key comments/issues raised	Project team consideration
Cumulative impact	<ul> <li>General concerns about the industrialisation of the area and cumulative impacts with other developments.</li> <li>Concerns about the potential cumulative impact of substation zone 1 in relation to Dogger Bank A and B and proposed solar developments.</li> <li>Support for substation zone 1 as considered to have least cumulative impact.</li> <li>Support for substation zone 1 as site considered to have least impact on agricultural land take and local environment.</li> <li>Concerns about potential of development creep associated with substation zone 5.</li> </ul>	Consideration of cumulative effects forms part of the EIA process.
Ecology	<ul> <li>Information on different wildlife species found across the area.</li> <li>Detailed information on locations of local nature re- serves, wildlife areas and other ecological features.</li> </ul>	<ul> <li>We are undertaking a range of ecology surveys, including bird surveys and habitat assessments in agreement with National England and other statutory consultees.</li> <li>Potential impacts on designated sites and ecology, along with any required mitigation actions is being assessed as part of our EIA, with preliminary findings set out in the PEIR.</li> </ul>
Geology and ground conditions	<ul> <li>Information and concerns about soil erosion issues along the coast.</li> <li>Information about historic landfill areas.</li> <li>Information about local geological activity.</li> </ul>	Ground conditions and impact on the land is being assessed as part of the EIA process, with preliminary findings set out in the PEIR.
Health	Concerns around health issues and stress caused by proposed development.	Potential impacts to human health is being assessed in the EIA process, with preliminary findings set out in the PEIR.

Theme	Key comments/issues raised	Project team consideration
Hydrology, hydroge- ology and flood risk	<ul> <li>Information about historical flooding across the area.</li> <li>Detailed information about local drainage and water courses.</li> <li>Concerns about the potential impact of the development on drainage systems</li> <li>Concerns that substation zone 1 is within flood risk area and support for substation zone 4 as it is outside flood risk area.</li> </ul>	<ul> <li>Flood risk to the projects from all sources including fluvial, coastal, surface water, groundwater, sewer and reservoir flooding as well as changes in flood risk from all resulting from the projects is being considered as part of the EIA, with preliminary findings set out in the PEIR.</li> <li>The EIA will also be supported by a separate Flood Risk Assessment (FRA) which will be undertaken in accordance with the National Planning Policy Framework and following suitable guidance to assess flood risk to the development and surrounding areas. This will inform the identification of any required mitigation measures with preliminary findings set out in the PEIR.</li> </ul>
Landscape and visual impact assessment	<ul> <li>Concerns about the visual impact of the substation on views in and from Beverley, and Bentley and towards the Humber.</li> <li>Request that substation should be screened and height of buildings minimised.</li> <li>Concerns about how long it would take for trees to grow to act as mitigation.</li> <li>Support for substations zone 1 and 5 as considered to have least impact due to proximity to Dogger Bank A and B development.</li> <li>Concerns that elevation of substation zone 4 would make it difficult to screen.</li> </ul>	<ul> <li>A Landscape and Visual Impact Assessment (LVIA) will also be carried out as part of the EIA, with preliminary findings set out in the PEIR. It will consider settings as well as potential impacts to sensitive receptors such as local communities, properties, historic features and recreational users in the area.</li> <li>Appropriate mitigation measures such as screening and sensitive siting of the substation buildings and equipment will also be considered.</li> </ul>
Noise	Concern about disruption from noise during construction.	Noise impact assessments (both temporary noise during construction and ongoing operational noise) will be carried out as part of the EIA, with preliminary findings set out in the PEIR.

Theme	Key comments/issues raised	Project team consideration
PROWs	<ul> <li>Concerns about the impact on footpaths around Beverley, specifically the long range footpath Beverley 20.</li> <li>Concerns about the impact of the development on footpaths and access at the cost.</li> <li>Concerns about temporary and permanent closures of footpaths.</li> <li>Requests for DBS to fund improvements to rights of way.</li> </ul>	A Land use assessment will be carried out as part of the EIA, with preliminary findings set out in the PEIR. It will consider the potential effects of the Projects on Public Rights of Way (PRoW) during construction, operational and decommissioning phases of the Projects and whether any mitigation measures for PRoW are necessary.
Socioeconomics and tourism	<ul> <li>Concerns about the potential economic impacts on local farms and businesses in the area, and request for compensation.</li> <li>Concerns about loss of land available for farming and food production.</li> <li>Concerns about potential impact on other proposed developments in the area.</li> <li>Objections as substation zone 1 would be close to residential property and paddock.</li> <li>Concerns about potential impact on caravan sites and holiday homes.</li> <li>Concerns about potential impact on property prices.</li> <li>Concerns about potential impact on tourism and tourist attractions in the area.</li> </ul>	<ul> <li>Socio-economic and Tourism and Recreation Assessments will be carried out as part of the EIA, with preliminary findings set out in the PEIR. The assessments will consider the impacts of the Projects along with any appropriate mitigation measures.</li> <li>We are in discussions with landowners who have concerns about potential impacts our project may have on individual properties and businesses.</li> <li>There is an ongoing process of dedicated engagement with those that have an interest in land. This will continue through the development cycle and into construction should the projects be granted consent.</li> </ul>

Dogger Bank South Offshore Wind Farms

Theme	Key comments/issues raised	Project team consideration
Traffic and transport	<ul> <li>Preference for substations zones closer to dual carriage for site access.</li> <li>Concerns about impact of construction traffic on roads across area and increased congestion.</li> <li>Concerns about conflict with improvement proposals for Jocks Lodge A1079/A164 junction.</li> <li>Concerns about access for residents and fishermen during construction.</li> <li>Information about potential reinstatement of Wilberforce Way.</li> </ul>	<ul> <li>A Traffic and Transport Assessment will be carried out as part of the EIA, with preliminary findings set out in the PEIR. It will consider any potential impacts on the local traffic network and along with any appropriate mitigation measures.</li> <li>We are working with the local highways authority (East Riding of Yorkshire Council) and developing an Outline Construction Traffic Management Plan (CTMP) which will seek to minimise disruption on the local road network and agree access routes for construction vehicles. The Outline CTMP will be submitted with the Development Consent Order (DCO) application.</li> <li>We are aware of the proposed works at Jocks Lodge and will work with East Riding of Yorkshire Council to ensure that the new Jocks Lodge design is incorporated into any engineering proposals at this location.</li> </ul>

More details of our assessments and considerations and how they have influenced the site selection are reported in the PEIR which has been published as part of our statutory consultation.

## 5.2. Engagement with landowners

- 5.2.1. There were a number of generalised and specific concerns about the potential impact of the projects on farms and arable land in the area. RWE is committed to working closely with individual landowners to minimise impact to operational farms. There is an ongoing process of dedicated engagement with those that have an interest in land. This will continue through the development cycle and into construction should the projects be granted consent.
- 5.2.2. People with an interest directly affected by the project can contact our land agents, Dalcour Maclaren on 01423 613388 or by email at: <a href="mailto:doggerbanksouth@dalcourmaclaren.com">doggerbanksouth@dalcourmaclaren.com</a>

## 5.3. Statutory public consultation

- 5.3.1. The next stage of consultation will be from 6 June 2023 until 17 July 2023. This will be a statutory consultation in accordance with The Planning Act 2008.
- 5.3.2. At this consultation we will publish our Preliminary Environmental Information Report (PEIR). The PEIR sets out the initial findings of our EIA process as well as how consultation feedback has influenced the selection and development of the substation sites, cable route and landfall site.
- 5.3.3. A Statement of Community Consultation (SoCC) has been published which sets out how we plan to consult with the local community. The SoCC has been agreed with the Local Planning Authority. You can view the SoCC on the website: <a href="https://www.doggerbanksouth.co.uk">www.doggerbanksouth.co.uk</a>
- 5.3.4. Responses to the statutory stage of consultation must be considered in the development of the application. The details will be set out in a Consultation Report that will be submitted as part of the application for the DCO.

# 5.4. Engagement with stakeholders

- 5.4.1. We continue to have extensive engagement with stakeholders through a series of Expert Topic Groups. Key stakeholders have been engaged to ensure collaboration throughout the design process. These organisations include: Local authorities, Natural England, Marine Maritime Organisation, Cefas, Environment Agency, National Highways, RSPB, Wildlife Trusts, Historic England, Water Companies and Internal Drainage boards.
- 5.4.2. Expert topic groups have been set up to cover specific issues across all aspects of the project development as outlined below:

#### Offshore:

- Seabed
- Offshore Ornithology
- o Marine Mammal and Underwater Noise

#### Onshore:

- o Terrestrial Ecology and Ornithology
- o Traffic and Access, Onshore Noise and Air Quality
- Water Resource and Flood Risk

#### Project wide:

- o Seascape, Landscape and Visual Impacts Assessment
- o Historic Environment (offshore and onshore)
- o Site Selection
- o HRA Habitat Regulations Assessment

#### Others:

- Commercial Fisheries
- o Shipping and Navigation
- Aviation and Radar
- Other users
- o Human Health
- Socio-Economics
- Tourism and Recreation

# 5.5. The EIA process

- 5.5.1. As part of the project development process, we are carrying out an Environmental Impact Assessment (EIA). This will examine the current environment and will assess the potential impacts caused by the project.
- 5.5.2. We will prepare an Environmental Statement (ES) as part of our Development Consent Order application which will report on the findings of the EIA as well as how we will avoid, minimise or mitigate impacts wherever possible.
- 5.5.3. Many of the issues raised in feedback to the consultation relate to topics that are being assessed as part of the EIA process. These issues have been cross checked against the survey and assessment work that is being carried out to ensure that they are considered as part of the process.

# 6. Indicative Project Development Timeline

- 6.1.1. The indicative development timeline for the projects is expected to be as set out below:
  - Scoping Report submitted 26 July 2022
  - Introductory consultation held 9 September to 14 October 2022
  - Consultation on PEIR (statutory consultation) 6 June 17 July 2023
  - Submission of DCO application Q1 2024
  - Acceptance and pre-examination Q1 Q3 2024
  - Examination Q3 2024 Q1 2025
  - Recommendation and decision Q1 Q3 2025



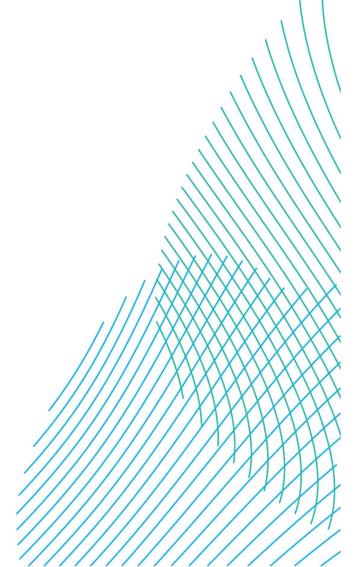
Figure 2- Indicative Project Development Timeline



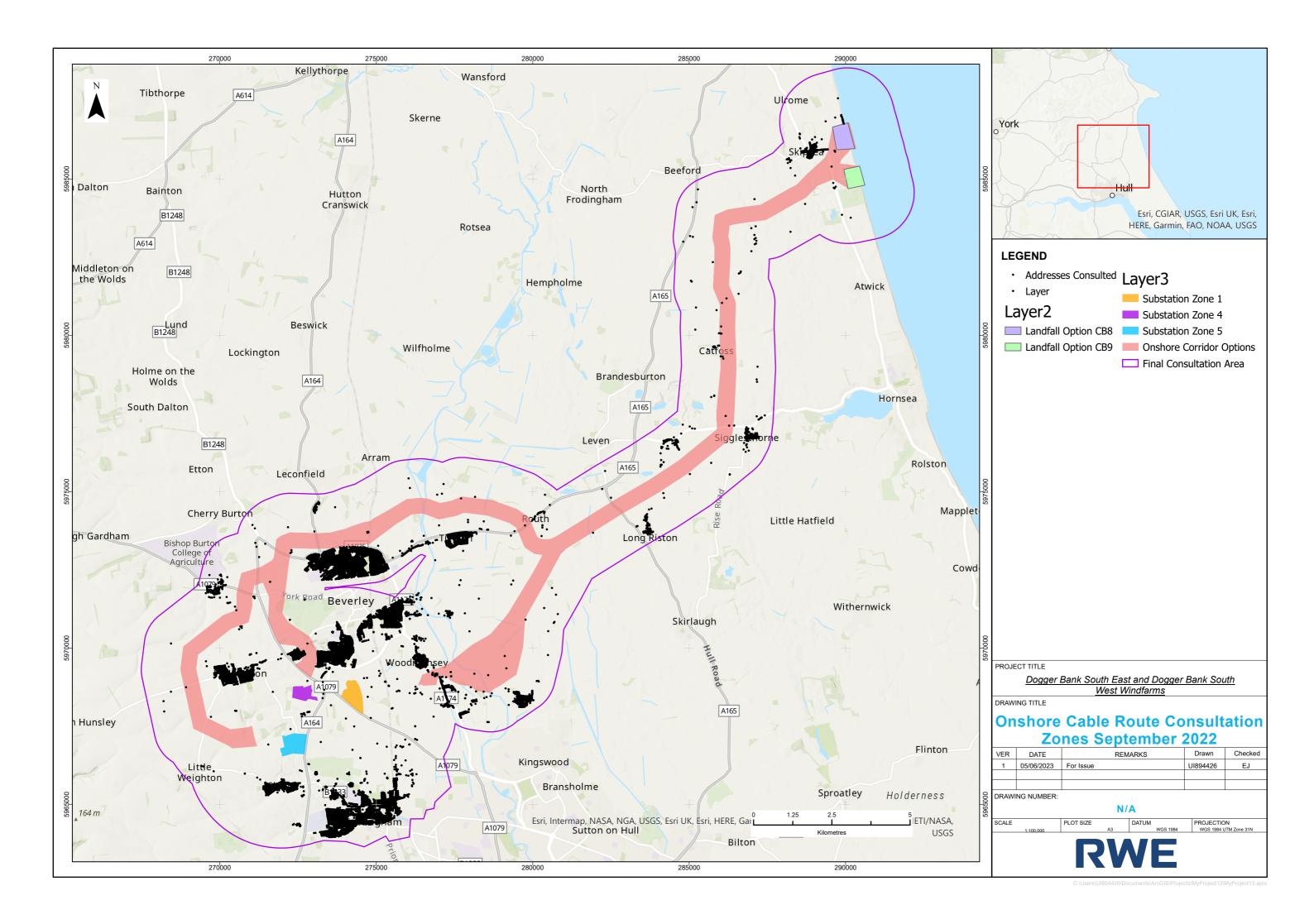
# RWE Renewables UK Dogger Bank South Offshore Wind Farms

**Appendix A** 

**Introductory Consultation Zone Map** 



Unrestricted

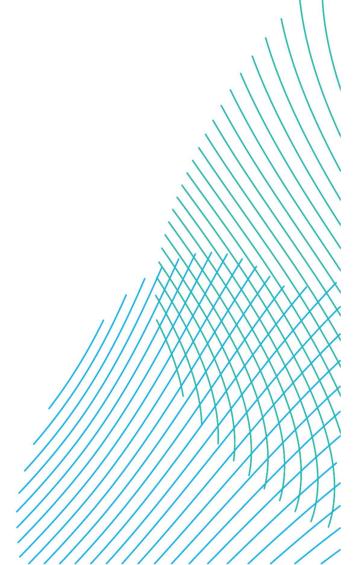




# RWE Renewables UK Dogger Bank South Offshore Wind Farms

**Appendix B** 

**Introductory Consultation Press Release** 





## **Press release**

# Local residents invited to take part in community consultation for Dogger Bank South Offshore Wind Farms

- The consultation, which will focus on shortlisted 'zones' identified as possible sites to house the onshore electrical infrastructure relating to the offshore wind farms, launches on 9<sup>th</sup> September 2022.
- Four public exhibition events to be held in local areas for residents to find out more about the wind farm proposals.
- A dedicated consultation website has also been created to allow residents to respond to the consultation in their own time.

Swindon, 8<sup>th</sup> September 2022

RWE, one of the UK's leading renewable energy developers, has today announced details around the upcoming non-statutory community consultation relating to the Dogger Bank South (DBS) offshore wind farms developments. The Introductory Consultation will run from 9<sup>th</sup> September 2022 to the 14<sup>th</sup> October 2022 and will give local residents a better understanding of the project and the opportunity to influence aspects of the electrical system design.

DBS East and DBS West are located over 100km offshore in the shallow offshore area of the North Sea known as Dogger Bank. Together, the projects could have a total installed capacity of up to 3,000 megawatts (MW) helping to meet the UK Government's commitment of 50GW of offshore wind by 2030, and supporting security of energy supply and delivery of its net zero targets.

Since being awarded preferred bidder status for DBS back in February 2021, RWE has been engaged in a process of site selection, aiming at connecting the proposed offshore wind farms to the national grid. This work has focused on identifying suitable offshore and onshore export cable corridors, cable landfall locations and substation locations for the projects.

The results from the Holistic Network Design process, undertaken by National Grid ESO, were published in July 2022 and identified that connections to the UK electricity network would be made in the vicinity of a new National Grid substation at a location near Creyke Beck for both DBS projects.



In undertaking the site selection work, RWE has sought to strike a balance between commercial, engineering, environmental and social considerations. In so doing, the company has sought to minimise impacts on local communities and the environment where possible. The details of the site selection work, the options remaining under consideration and the processes followed to develop these options are presented as part of the upcoming consultation.

Whilst the upcoming consultation focuses on the 'zones' identified as possible sites to house the onshore electrical infrastructure relating to the DBS projects, the company will also welcome comments on all other aspects of the wind farm (offshore array, export cable corridors etc.).

Four public exhibition events will be held as part of the consultation exercise to give local residents the chance to meet members of the project team. In addition to the live public events, a dedicated consultation website has been created to give those unable to attend the exhibitions in person, the opportunity to view all of the relevant information and respond to the consultation.

Trevor Baker, RWE Project Lead for Dogger Bank South continued "As a responsible developer, RWE always takes engagement with local residents and groups very seriously to ensure that our developments are having the least possible impact on communities. Our consultation will give residents the opportunity to have their say on our proposals and the feedback we receive will help shape our development. We understand that people living and working locally have a wealth of knowledge and may be able to identify issues affecting these potential onshore substation zones that we are not aware of."

"Our public exhibition events are open to all and we look forward to meeting as many local residents as possible to discuss our proposals. We encourage local residents to take the opportunity to respond to our consultation."

Date	Time	Location
27th September 2022	2pm - 6pm	Skipsea Village Hall, Bridlington Rd,
		Skipsea, Driffield YO25 8TJ
28th September 2022	3pm - 7pm	Beverley Memorial Hall, 73-75 Lairgate,
		Beverley, HU17 8HN
7th October 2022	3pm - 7pm	Catwick Village Hall, Rowpit Lane, Riston
		Road, Catwick, Beverley, HU17 5PR
8th October 2022	11am - 3pm	Beverley Memorial Hall, 73-75 Lairgate,
		Beverley, HU17 8HN

Local residents will be able to respond to the consultation by completing questionnaires which will be available at the public exhibition events and can be downloaded from the website or requested directly. It is also possible to respond to the consultation online via the dedicated consultation website.

Letters inviting residents to take part in the consultation have been sent directly to over 19,000



households located in the vicinity of the proposed DBS electrical system.

For further enquiries:

Communications & Stakeholder Manager M +44

E @rwe.com

#### **RWE**

RWE is leading the way to a green energy world. With an extensive investment and growth strategy, the company will expand its powerful, green generation capacity to 50 gigawatts internationally by 2030. RWE is investing €50 billion gross for this purpose in this decade. The portfolio is based on offshore and onshore wind, solar, hydrogen, batteries, biomass and gas. RWE Supply & Trading provides tailored energy solutions for large customers. RWE has locations in the attractive markets of Europe, North America and the Asia-Pacific region. The company is responsibly phasing out nuclear energy and coal. Government-mandated phaseout roadmaps have been defined for both of these energy sources. RWE employs around 19,000 people worldwide and has a clear target: to get to net zero by 2040. On its way there, the company has set itself ambitious targets for all activities that cause greenhouse gas emissions. The Science Based Targets initiative has confirmed that these emission reduction targets are in line with the Paris Agreement. Very much in the spirit of the company's purpose: Our energy for a sustainable life.

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Windmill Hill Business Park Whitehill Way Swindon Wiltshire, SN5 6PB