MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Annex 3.1 to Applicants' Response to WRs from Statutory Consultees: Lancashire Association of Local Councils Fylde Area Committee Energy Working Group







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Working Group4





Glossary

Term	Meaning
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Candidate Special Areas of Conservation	Areas that were submitted to the European Commission as candidates for designation as a Special Area of Conservation before the end of the Transition Period following the UK's exit from the EU, but not yet formally designated. See also Special Areas of Conservation.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
European Protected Species	Species (such as bats, great crested newts, otters and dormice) which receive full protection under The Conservation of Species and Habitats Regulations 2017 and Conservation of Offshore Marine Habitats and Species Regulations 2017.
Generation Assets	The generation assets associated with the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm include the offshore wind turbines, inter-array cables, offshore substation platforms and platform link (interconnector) cables to connect offshore substations.
Greenhouse gas	A gas that absorbs and emits radiant energy within the thermal infrared range, causing the greenhouse effect. Examples include carbon dioxide and methane.
Habitats Regulations	The Conservation of Habitats and Species Regulations 2017 (as amended) and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended).
Kyoto Protocol	The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its parties to reducing greenhouse gas emissions by setting internationally binding emission reduction targets, implemented primarily through national measures but also via wider market-based mechanism.
Landfall	The area in which the offshore export cables make landfall (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Lytham St. Annes between Mean Low Water Springs and the transition joint bay inclusive of all construction works, including the offshore and onshore cable routes, intertidal working area and landfall compound(s).
Local Planning Authority	The local government body (e.g., Borough Council, District Council, etc.) responsible for determining planning applications within a specific area.





Term	Meaning	
Marine licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for to apply for 'deemed marine licences' in English waters as part of the development consent process.	
Morecambe OWL	Morecambe Offshore Windfarm Ltd is a joint venture between Cobra Instalaciones y Servicios, S.A. (Cobra) and Flotation Energy Ltd.	
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore export cables, landfall and onshore infrastructure for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds. Also referred to in this report as the Transmission Assets, for ease of	
	reading.	
Morgan OWL	Morgan Offshore Wind Limited is a joint venture between bp Alternative Energy investments Ltd. and Energie Baden-Württemberg AG (EnBW).	
National Policy Statement(s)	The current national policy statements published by the Department for Energy Security and Net Zero in 2023.	
Planning Inspectorate	The agency responsible for operating the planning process for applications for development consent under the Planning Act 2008.	
Protected species	A species of animal or plant which it is forbidden by law to harm or destroy.	
Ramsar sites	Wetlands of international importance that have been designated under the criteria of the Ramsar Convention. In combination with Special Protection Areas and Special Areas of Conservation, these sites contribute to the national site network.	
Renewable energy	Energy from a source that is not depleted when used, such as wind or solar power.	
Special Areas of Conservation	A site designation specified in the Conservation of Habitats and Species Regulations 2017. Each site is designated for one or more of the habitats and species listed in the Regulations. The legislation requires a management plan to be prepared and implemented for each SAC to ensure the favourable conservation status of the habitats or species for which it was designated. In combination with Special Protection Areas and Ramsar sites, these sites contribute to the national site network.	
Special Protection Areas	A site designation specified in the Conservation of Habitats and Species Regulations 2017, classified for rare and vulnerable birds, and for regularly occurring migratory species. Special Protection Areas contribute to the national site network.	
The Secretary of State for Energy Security and Net Zero	The decision maker with regards to the application for development consent for the Transmission Assets.	
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).	





1 Applicants' response to Written Representations

1.1 Introduction

- 1.1.1.1 Following Deadline 1, Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (hereafter, 'the Applicants') have reviewed each of the Written Representations (WRs) and post hearing submissions received from stakeholders who registered as Interested Parties in the Examination.
- 1.1.1.2 Details of the Applicants' response to the WR of Lancashire Association of Local Councils Fylde Area Committee Energy Working Group are set out in the subsequent sections of this annex.





2 Responses to Written Representations

2.1 Lancashire Association of Local Councils Fylde Area Committee Energy Working Group

Table 2.1: REP1-083 – Lancashire Association of Local Councils Fylde Area Committee Energy Working Group

Reference	Written Representation Comment	Applicants' response
Committee Energy Working Group (EWG) continues to of Morgan and Morecambe Offshore Windfarms Transmiss Assets DCO application. It highlights major concerns inc	Summary: The Lancashire Association of Local Councils Fylde Area Committee Energy Working Group (EWG) continues to oppose the Morgan and Morecambe Offshore Windfarms Transmission Assets DCO application. It highlights major concerns including project delays, lack of alignment with national grid connection	The Applicants note the comments of The Lancashire Association of Local Councils Fylde Area Committee EWG and refer them to sections 2,3,4,5 and 6 of the Applicants' response to Hearing Action Points: ISH1 6, 8, 9, 19, 26 & 28 - Rev F01 (REP1-039). In particular, the Applicants refer to Sections 3 and 4 (and the summary at 1.3) of REP1-039 which set out the Applicants' position, supported by
	plans, and inefficiencies in the Applicants' proposed route via Penwortham. The EWG argues this approach increases costs, environmental, and community impacts while being inconsistent with planning policy and lacking the economy & efficiency required	NPS policy, that it is not necessary nor appropriate to consider or assess different projects with alternative Points of Interconnection (or "terminating point[s]" in the language of paragraph 2.2.1 of NPS EN-5) during this Examination.
	under the Electricity Act 2008. The EWG proposes a superior "Material Alternative" using the established Stanah substation and Hillhouse Technology Enterprise Zone (HTEZ), and existing 400kV twin circuit overhead line connecting Stanah with Penwortham, which offers proven infrastructure, cost savings (£903m), and reduced disruption. The	The Pol for the projects is at the NGET Penwortham substation. The Pol was not selected by the Applicants. It was determined by a separate process which is subject to legal duties and process including the SQSS¹, and for which NESO (the UK's Electricity System Operator Licensee) is responsible, with input from NGET and the Applicants. Ultimately, the Pol was not a decision within the direct control, statutory function, or expertise of the Applicants (Section 3 of REP1-039).
	current DCO application contradicts the assumptions used by National Grid in the Holistic Network Design Review (HNDR), which were based on a shared substation site— something not present in the Applicants' actual plans.	Specifically in response to this Written Representation, the proposed "Material Alternative" would involve a change to the Pol (i.e. the terminating point where the projects connect to the National Electricity Transmission System owned by NGET). This is because the proposal for

¹ The Security and Quality of Supply Standard sets out the criteria and methodology for planning and operating the National Electricity Transmission System (NETS)

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Reference	Written Representation Comment	Applicants' response
	Moreover, the Applicants have not demonstrated a proper comparative assessment of alternatives, particularly Stanah, despite its consistent shortlisting for other offshore projects. Statements made by the DESNZ Minister to Parliament referencing Stanah are unsupported by HNDR documentation and appear outdated or inaccurate. The EWG urges the Examining Authority to seek clarification from National Grid, Ofgem, and the Minister on how Stanah/HTEZ was excluded from consideration. It maintains that the Applicants' route lacks justification, introduces unnecessary harm, and fails to represent the lowest whole system cost or a compliant, sustainable energy strategy.	a "Material Alternative" suggests a connection into NGET's network not at the Penwortham substation but using the established Stanah substation and Hillhouse Technology Enterprise Zone (HTEZ), and existing 400kV twin circuit overhead line connecting Stanah with Penwortham (see further Section 3.5.1.4 of REP1-039). The Applicants understand and appreciate that it may appear that there are alternative Pols when viewed at a local level without consideration of the broader system requirements and legal duties that relate to the NETS as a whole. The Applicants appreciate that this might be a source of local frustration if there is not a proper understanding of the process, but they consider that their participation in the Holistic Network Design (HND) process (which took equal account of cost, technical, environmental, and community factors) was considerably more transparent for local communities than the previous Construction and Information Options Note (CION) process (Section 3.3 of REP1-039). In addition to public documents like the HND available to the local community, the Applicants understand that specific questions have been responded to which support and explain the position set out by the Applicants from the point of view of the other parties in the connection process. The Written Representation REP1-117] refers to an Fol response from National Grid (assumed to refer to NGET) from December:
		"Thank you for your message. As part of our legal obligation to facilitate new connections to the network, it is our responsibility to identify the most suitable connection point based on factors such as location, project requirements, network resilience, cost, environment and the capacity of our existing infrastructure. Penwortham and Stanah substations have different roles within our electricity network and for Morgan and Morecambe's proposed projects, Stanah is currently not best placed to accommodate these connections. Stanah is a small substation that has primarily been designed to step down the power from higher voltage transmission lines to lower voltage lines, so that it is ready to be distributed to consumers. Penwortham is much larger in comparison and





Reference	Written Representation Comment	Applicants' response
		is part of our high-voltage transmission network, which is able to connect power generation sources, such as wind farms, to the network. Unlike Stanah, Penwortham substation currently has the flexibility and capacity on-site to facilitate Morgan and Morecambe's connection requests."
		Importantly, in responding to the submissions on alternative Pols, the Applicants are simply explaining that hypothetical alternative projects with different Pols need not be developed and assessed. However, the Applicants fully understand that they must demonstrate that the project as proposed with the Pol at Penwortham has been fully assessed, appropriately mitigated, and the benefits outweigh the impacts, all in accordance with the NPSs. This is the function of the DCO process and the ultimate decision by the Secretary of State. The Applicants were engaged in the HND process and carefully considered the Pol proposed before accepting the connection offer, based on a clear and considered view that it represents a suitable and appropriate connection for the Generation Assets (Section 4.2 of REP1-039) which is supported by the NPS and is capable of being delivered sensitively within the host community and environment.
		It is noted that the EWG WR includes one or two specific points of misunderstanding, which the Applicants seek to explain and correct below. These include an incorrect assumption that the Applicants proposed the route and PoI at Penwortham recommended by the HNDR, an overstatement of the relevance of substation siting to the conclusions of the HNDR, and an incorrect assumption that a connection to Stanah was not considered. Otherwise the Applicants' response is set out in the summary above and the full response to these points set out in Hearing Action Points: ISH1 6, 8, 9, 19, 26 & 28 - Rev F01 (REP1-039).
REP1-083	Introduction:	Please refer to the response to REP1-083.1 above.
083.2	The Lancashire Association of Local Councils, Fylde Area Committee Energy Working Group (EWG) has once again considered what it views to be the principal aspects of the above application and would make the following comments.	





Reference	Written Representation Comment	Applicants' response
	This is an updated addition to the Relevant Representation (RR), RR-1261, made by the EWG. regarding the Morgan and Morecambe Offshore Windfarm Transmission Assets Project (the Project), promoted by Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (the Applicants) The EWG supports the realisation of opportunities and avoidance of adverse impacts arising from energy related developments, including in accord with the Government's ambition for: national Economic Growth; Regional Levelling Up; Energy Security; and Sustainable Development at the lowest whole system cost to the consumer. The responses by the Applicants to RR-1261 are noted, however they do not provide the evidence to change conclusions & recommendations of the EWG.	
REP1-083 083.3	It is noted that the regulator Ofgem has just approved "the Grid Connections Reforms". It is also noted that Ofgem identifies that there is a backlog of some 750GW of projects to be connected. This is apparently multiple times more energy than the nation requires even by 2050. The notional generation capacity of 1.5GW of the Morgan and 0.48GW of the Morecambe project contribute at best only 0.2% and 0.064% of that backlog. As such, they cannot be considered mathematically nationally significant. In addition the delivery schedule of the Morecambe and Morgan projects have effectively slipped two years+ compared with the dates their website is forecasting. The latest project schedules presented by the Applicants mean that they will no longer meet the 2030 Clean Power requirement by its own publicity and the scheduling in the Application. In the National Grid RIIO-T3 Business Plan https://www.riiot3.nationalgrid.com/document/30069/download)	"3.2.6 The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part.





Reference	Written Representation Comment	Applicants' response
	shows that it plans to connect only 450MW of offshore wind energy by 2031 in the North West. A total that is not aligned to be sufficient to connect either of the Morgan or Morecambe projects.	3.2.8 The Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS."
		Indeed NPS EN-1 goes even further than this, and concludes that for nationally significant low carbon infrastructure, like these projects, there is a critical national priority (CNP).
		The Applicants also note the comments in relation to the National Grid RIIO T3 Business Plan. The RIIO T3 submission does not limit a TO's (i.e. NGET's) ability to connect customers in line with contracted dates or undertake further reinforcements. In addition to the NGET RIIO T3 plan, OFGEM has published their decisions on the requirement to accelerate the onshore network upgrade to meet the Government's ambition of up to 50GW of offshore wind generation by 2030 as set out in their accelerating onshore electricity transmission investment publication (ASTI). This was needed as the scale of onshore upgrade requirement was not captured under the NGET RIIO T2 Business Plan. (
		As highlighted in the OFGEM's ASTI publication,
		"Delivering the Government's ambitions will require a step-change in the way large onshore transmission projects are delivered with an unprecedented level of network infrastructure required up to 2030.
		In April 2022, the Government published it's Energy Security Strategy (ESS) which set out the ambition to connect up to 50GW of offshore wind generation to the electricity network by 2030. The Electrical System Operator (ESO) was tasked with identifying the network upgrades that would be needed to meet the Government's 2030 ambitions. This request resulted in the ESO publishing the Holistic Network Design (HND) and Network Options Assessment (NOA) Refresh in July 2022, which set out the required offshore and onshore network reinforcements to allow for the compliant connection, under Security and Quality of Supply Standard (SQSS), of the offshore generation.
		Delivering the Government's ambitions will bring significant benefits to the British energy system in terms of its overall resilience, security of





Reference	Written Representation Comment	Applicants' response
		supply and decarbonisation of the sector. However, there are also significant potential consequences if the required onshore transmission upgrades are not delivered by 2030, including capacity not being able to be connected in a full and safe manner, increased constraints, and constraint costs that are ultimately passed on to consumers' energy bills." As explained in Section 6 of the Applicants' response to Hearing Action Points: ISH1 6, 8, 9, 19, 26 & 28 - Rev F01 (REP1-039), both Morgan and Morecambe have signed Bilateral connection agreements, and the connection dates for both projects are published in Transmission Entry Capacity (TEC) register. The stated connection dates (listed as 'MW effective from' in the table) are 30th June 2029 for Morecambe and 30th November 2029 for Morgan. Neither NGET nor NESO have provided any indication that these dates will not be achieved. As such the Applicants' project timescales remain accurate, enabling the projects to contribute to the Government's ambition of up to 50GW of offshore wind generation by 2030.
REP1-083 083.4	The delays, inconsistencies, lack of compliance and seeming inability to resolve detail, start to make these look like "the Zombie" projects that are perhaps likely to be avoided by the Government.	Please refer to the response to REP1-083.1 above
	The EWG, however, continues to offer to support the Applicants to save time, costs and adverse impacts for all, through the utilisation	





Reference	Written Representation Comment	Applicants' response
	of the local energy infrastructure in favour of their current approach. The Applicants' approach is one of non-compliant, problematic, completely new 30km undergrounding of two separate cable corridor & substation projects in two independent activity streams over still to be determined multiple years, which may not now be prioritised for connection to the National Grid.	
	In addition, using the latest costings just published by the IET in relation to Transmission Technologies, it is suggested that adoption of the established northern route via Stanah/ Hillhouse Technology Enterprise Zone (HTEZ) - the Material Alternative route – would save developers and consumers some £903m net, in comparison to the Applicants' current approach.	
	The Applicants' approach cannot be described as efficient nor economic, in conflict with the National Planning Statements and the Electricity Act 2008. It would be hoped that Applicants' would not be penalised by the DCO process, if they at this early planning stage realised and adopted the benefits for all, of by pursuing the established northern route via Stanah/HTEZ – the Material Alternative.	
	The EWG continues to object to the Project on the grounds set forth in this and its earlier RR (RR1261). These grounds raise questions about the Applicants' reasoning for the proposed site locations for the Morgan and Morecambe onshore transmission assets, as well as the resultant unnecessary and unacceptable detrimental environmental, community and economic consequences of this decision.	





Reference	Written Representation Comment	Applicants' response
REP1-083 083.5	The EWG would wish to potentially provide further updates, as appropriate, on further details and matters with regard to statements made by the Applicants, or as they become available through the course of the Examination. The Applicants acknowledge that there remains multiple outstanding unacceptable adverse impacts at this point in their DCO Application. These and other unacceptable impacts would not exist if the Applicant had taken an approach that sought to comply with and utilise the portfolio of already provisioned material development infrastructure assets to deliver economic and efficient net zero	The Applicants refute the statement that they have acknowledged that there remain multiple outstanding unacceptable adverse impacts. It is unclear why the EWG would think this. The Applicants have submitted a robust application in line with national policy that has sought to minimise impacts where possible and provide appropriate and secured mitigation where needed. In addition, the Applicants are committed to working with stakeholders to resolve outstanding matters or concerns through the examination process.
REP1-083	whole systems at the lowest cost to consumers. Independence of Projects, Alternatives and Site Selection:	The Applicants consider it helpful to EWG and to the examination to
083.6	At the first Issue Specific Hearing, the Applicants' representative clarified why there was a range of construction scenarios with the	correct some misunderstandings which are apparent from this part of the EWG's Written Representation.
resultant demand by the Applicants to decide upon whether and when there were to be gaps in and then restarting of construction activity. This was driven through the emphasis that the DCO application involved two independent projects. It is noted however that in promoting their recommended route, the Applicants refer in section RR-1261 1261.3 of the Applicants' response to the EWG's RR, the document: "NESO: Pathway to 2030: Holistic Network Design - July 2022" - (HNDR) (link – https://www.neso.energy/document/262681/download). It appears that EWG consider that proposed by the Applicants (the W that was proposed by the Applicants (the W that	resultant demand by the Applicants to decide upon whether and when there were to be gaps in and then restarting of construction activity. This was driven through the emphasis that the DCO	It appears that EWG consider that the proposed Pol at Penwortham was proposed by the Applicants (the WR states "The proposed route was one that was proposed by the Applicants." and then makes reference to Stanah). This is not the case. The Applicants engaged with the HNDR review process and provided feedback on the original proposal arising
	from the HND of an electrically integrated connection for both projects connecting at Penwortham. The Pol at Penwortham was identified by NESO as part of the HND process, which included a long list and then short listed options (and it is clear Stanah was considered and not taken forward) - see Section 3.4.1.8 - 3.4.1.10 of REP1-039. When engaged on this original proposal, the Applicants expressed a view that a design with electrical integration offshore was not appropriate to deliver the Government's ambition of up to 50GW of offshore wind generation by	





Reference	Written Representation Comment	Applicants' response	
	In the HNDR at section 5.Regional overview : 5.1 North West Region, 5.1.16 Stakeholder feedback (p64) the following statement is made :	2030 due to the level of uncertainty around the design and the level of anticipatory investment required. The Applicants considered that alternative radial connections, with a shared cable corridor, offered a greater degree of certainty with regard to project delivery and reduced	
	"Following stakeholder feedback, the design for R4_5 and R4_6 was changed from a coordinated design with electrical integration offshore, to radial connections with a shared cable corridor.	complexity and infrastructure. As noted in the HNDR, NESO has performed the assessment in line with HND objectives and recommended the design option validating the benefits highlighted by the	
	The connections would share a land substation site, landfall, and cable corridors.	Applicants' proposal:	
	The developers had proposed this solution as an alternative to our proposed coordinated design.	'We evaluated the developers' proposal in comparison to our original proposal and found that it performs better from an economic perspective, as the simpler offshore platform designs reduce the infrastructure costs."	
	We evaluated the developers' proposal In comparison to our original proposal and found that it performs better from an	See further Section 3.4.1.9 of REP1-039.	
	economic perspective, as the simpler offshore platform designs reduce the infrastructure costs."	With regard to the Transmission Assets substation sites, it is important to be clear that the HND is intended to specify Pols, but not to mandate a particular choice of cable route or the exact location of onshore substations:	
	The design for R4_5 and R4_6 stated in the quotation refer to the Morecambe and Morgan projects respectively. The above quotation, with text bolded here and spacing introduced for ease of highlighting, makes it clear that:	"The HND specifies the interface sites, onshore works, and offshore network interconnection, but does not mandate a particular choice of route, use of particular technology or exact locations of required substations." (page 22 of the HNDR) and also "The HND will be followed by a Detailed Network Design (DND) and consenting process that will	
	i) The recommendation for the proposed route was based on an assumption that "the connections would share a land substation site", which is not the case in the Application submitted to the Examination.	develop the HND recommendations further to determine technology choices, transmission routes, and the locations of substations and converter stations." ('Next Steps' section of the HND executive summary).	
	recommendation was therefore based upon a wrong headed assumption and subsequent assessment	In relation to the Transmission Assets, the HNDR does go further than the Pol alone, recommending a "shared cable corridor". However, given that the recommendations of the HND are expressly not mandating particular project substation locations, the specific siting and design of those	
	Given the Applicants' emphasis on the demand for independent substation sites and activity streams in their Application, it is not evident from the information	substation locations, the specific string and design of those substations are matters for the Applicants. This is especially the case given that the co-location of the Onshore substations in the same zones has enabled a key recommendation of the HNDR for the projects – the shared cable corridor – to be delivered. This is because the end point for	





Reference	Written Representation Comment	Applicants' response
	and assessments. As such, no one could conclude that the Applicants' proposal at that time was not a true representation of their intent. However, the current submission is in conflict with the fundamental assumptions upon which the National Grid came to their recommendation.	the cable route at the Onshore substations is in the same zone, as is the start point of the onwards route from the Projects' Onshore substations to NGET's Penwortham substation and the Pol, and so this enables the shared cable corridor. See further ISH_12 Agenda item 4(d) of he Applicants' response to Hearing Action Points due at Deadline 1 - Rev F01 (REP1-037). The Applicants have explained that they have not relied on the findings of the HND for the decisions they have made on cable routing,
	ii) It is apparent that some form of costed assessment was conducted by National Grid in coming to their recommended approach.	landfalls, and substation sitings. However, the Applicants do consider that the fact the HNDR was based on a separate previous review of routing and siting which align with the Applicants' detailed design for the Transmission Assets provides reassurance and corroboration for their
	It is not apparent that National Grid had been provided with the Developers' costings for comparisons of the options that were considered in order to determine the economic and efficient whole system, option, including potential options for connections to the National Grid network e.g. Penwortham, Middleton and - the only National Grid substation on the Fylde Coastal Plain – Stanah.	routing and siting decisions.
	iii) The proposed route was one that was proposed by the Applicants. This was adopted by National Grid based upon the assumption of a shared land substation site.	
	There is no indication that Stanah would not have been a more attractive Material Alternative had the Applicants offered this, having consulted with local knowledge. That local knowledge could have readily been gleaned from, say:	
	 the Nationally Approved Local Development Plans, which would have highlighted land provisioned for development such as land converter substations e.g. the three Nationally Approved Enterprise zone sites on the Fylde Coastal Plain; and/or, 	





Reference	Written Representation Comment	Applicants' response
	 local energy industry sector expertise, e.g. local National Grid staff associated with the "R4 Penwortham-Stanah National Grid Group", or Orsted the developer of the Walney 2 offshore wind farm connected to Stanah. 	
	This would enable a lowest whole system cost to the consumer, economic and efficient route that is compliant with National and Local planning policy framework. By contrast, this is evidently not the case with the Applicants' current choice of route and approach of independent activity streams and separate substation sites.	
	In the Applicants' document "Volume 1, Chapter 4: Site Selection and Consideration of Alternatives (AS-026)" at 4.2.2.3 the following statement is made	
	"A key output of the HNDR process was that the preferred connection approach was for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to work collaboratively to consent proposals for the offshore wind farms to connect to the National Grid at the POI at Penwortham in Lancashire."	
	It is apparent from the HNDR (page 64), this output was as a direct result from the wrong headed assumption of a shared onshore substation site.	
REP1-083 083.7	Based on that shared substation site assumption, the HNDR Appraisal Summary (p144) was presented as shown below in Table 1 with four "amber" ratings. It is noted that the definition of the "BRAG" Amber as shown in Table 2 below.	The Applicants can clarify that the HNDR explains that the BRAG table referred to is a summary of the conclusions for the preferred design. It does not purport to be a complete comparative options summary. The HNDR sets out in Appendix 2 the options appraisal process taken to





Reference	Written	Repre	sen	ntatio	on Co	omm	ent					Applicants' response
	Table 1 national grant Appraisal Sum Table 39 - Offshore Wind Farm (or en R4_4 Bodel R4_5 Penwir R4_6	re likely and sho would ecomme was alreamber rathorn to ompari assed o act the howing orth of ocume worth ocupation worth of ocume worth ocupation worth of ocume worth ocupation wor	y to uld the application of the	required average and the attention recognized for asset with the assistant of the assistant	re deroided nat Na of rougnise all cressme the roumpti comp on the land of the	tailed tailed if po ationa ute produce	assible al Griroposis being. The a root that technical sps irroduced and total answered Oan total answered O	e 39 of nission options at a land. There	tted a the Applomplia or refere sing Stecomm the Applomplia or refere singure of the Applomplia or reference or	plicant int., wi ence in tanah endec intranah endec in tanah endec in tanah endec in tanah in	gation s that th n the or a I I I I I I I I I I I I I I I I I I I	reach these conclusions, it does not include all the data and workings (noting at one point that initial appraisals were carried out for 170 potential route corridors). However, helpfully, in relation to Stanah specifically, A.2.2.3 explains that Appendix B of this section of the report provides a case study for North West England covering the identification of interface point sites. It's clear from figure 32 of Appendix B that Stanah is considered, and it is explained that "This exercise included all existing and planned substations on the 400kV and 275kV network in the region". Stanah did not make the short list as it was concluded that "The interface sites selected for further consideration for both the radial and coordinated designs in the North West Region were Middleton, Penwortham, Bodelwyddan and Pentir." See further REP1-083.1 and REP1-083.6 above and Section 3.4 of REP1-039.





- WIII	ten Re	presentation Comme	ent	A	pplicants' respo	onse	
Table	2						
E05055				127.0000000			
		is from Section A2.2.2 Establis					
-03		ription of the "BRAG" ratings as	a summary of the assessment	outputs			
shown	in Table	1 above.					
	Table 39 - Bi	RAG Ranking Table					
	Rank Black	Environment/Community Features or designations which affect the	Technical Features or constraints that are likely to				
		likelihood of an option being achievable to such a degree that the option should not be considered as part of the HND.	affect the feasibility of construction and/or buildability of the HND to such a degree that the option should not be considered as part of the design.				
	Red	Features or designations that are so significant or pose such a high degree of risk to the design that they should be avoided. except in exceptional cases which include where potential mitigation (or compensation) is known; where the potential benefits to the design would clearly outweigh the potential harm and/or impacts; or where there are no alternatives.	Features or constraints that are likely to affect the feasibility of construction and/or buildability of the design to such a degree that options affecting them should not be included in the HND without potential solutions to the issues raised.				
	Amber	The most protected features and/or areas that are likely to require detailed assessment and/or mitigation and should be avoided if possible.	Significant technical constraints that may cause cost increases and/or significant schedule delays; not ideal but likely to be achievable and/or capable of resolution.				
	Green	Features or designations to be taken into account in constraint assessment/study but which are likely to be capable of resolution.	Informative of approach but medium to low likely technical constraint causing significant cost increase and/or significant schedule delays.				
would the u infras	d avoid tilisation tructure option	oncluded that since an o all environmental and co n of the established local e, then applying the Natio utilising Stanah/HTEZ, t al criteria would be cate	mmunity constraints th energy development onal Grid BRAG criteria he community and	ough			
include the 2	des the km ope	ned local energy related 138 hectare HTEZ with i n space access to the Iri substation, the site's exp	ts physical connectivity sh seashore & the Nati	with nal			





Reference	Written Representation Comment	Applicants' response
	circuit overhead transmission line that links Stanah with both Penwortham and Heysham and beyond to consumers served by the National Grid network.	
	Also at at section RR-1261 1261.3 of the Applicants' response to the EWG's RR, the Applicants' rely on a reference to a written statement to Parliament in response to a question by the MP for the Fylde Constituency. This appears to be in preference or due to the inability to present the Applicants' own analysis as to how they came to propose their preferred approach to National Grid during the HNDR as quoted above. The information provided by the DESNZ Minister of State in his written statement to Parliament appears to be conflicted with the reality at the time of the HNDR. The written question and answer are reproduced below in full:	
	"Question for Department for Energy Security and Net Zero https://questions-statements.parliament.uk/written-questions/detail/2024-12-12/19898/ Wind Power: Fylde To ask the Secretary of State for Energy Security and Net Zero, with reference to his oral Answer to the Question from the hon. Member for Fylde of 8 October 2024, Official Report, column 140, whether his Department has made an assessment of the viability of (a) Stanah in Blackpool North and Fleetwood constituency and (b) other alternative routes for connecting the Morgan and Morecambe wind farm to the national grid. Asked 12 December 2024 The Electricity System Operator (then ESO, now NESO) assessed connection to the Stanah substation for Irish Sea wind farms alongside other substations in the Northwest and North Wales as part of the Holistic Network Design.[1] ESO identified that Stanah substation would require extension to accommodate	
	the Morgan and Morecambe offshore wind farms. Due to limited space, a new substation would be needed, with associated time and cost. Access was challenging due to residential and recreational surroundings, and there were environmental	





Reference	Written Representation Comment	Applicants' response
	constraints around Morecambe Bay. 6 190 195 200 205 210 215 220 225 In contrast, Penwortham had a more accessible footprint, fewer constraints, and better electrical connectivity to the wider network. [1] https://www.neso.energy/publications/beyond-2030/holistic-network-design-offshorewind Answered 17 December 2024 By Michael Shanks (Labour, Rutherglen)"	
	In assessing this statement to Parliament:	
	i. The written answer references the HNDR, however there is no reference to Stanah being assessed in that document. In fact there is no reference to the term "Stanah" in that document. It is unclear then how the HNDR reference is material to the statement.	
	ii. Whilst the answer states that Stanah would require extension, it is noted that the HNDR also identified that Penwortham would require extension to accommodate the Morgan and Morecambe offshore wind farms. Section 5.1.3 of the HNDR states that the following works would be required: "Extension of the existing Penwortham 400 kV substation to establish bays for connection to the offshore network". This would essentially be the same as that required for Stanah.	
	iii. Expansion space is available at the Hillhouse Technology Enterprise Zone (HTEZ). It is not clear what is meant by a new substation. Any associated time and cost impacts would require to be considered against the savings in time and costs by avoiding the 30km of land cabling costs and time. It is not apparent that that assessment has been evidenced.	
	iv. The statement "Access was challenging due to residential and recreational surroundings" does not recognise that access from the Irish Sea has already been demonstrated by the Walney 2 offshore wind farm, and whose land	





Reference	Written Representation Comment	Applicants' response
	substation is hosted in the HTEZ site, immediately	
	adjacent to the National Grid Stanah substation.	
	v. In connecting Morecambe or Morgan wind farms via Stanah there is no need to cross into Morecambe Bay, so the statement that "there were environmental constraints around Morecambe Bay" is not applicable nor material.	
	vi. "In contrast, Penwortham had a more accessible footprint, fewer constraints, and better electrical connectivity to the wider network". Research reveals multiple projects where Stanah has been shortlisted as a connection point for connecting offshore cables to the National Grid network. This is where this is specifically in preference to Penwortham for being too distant, or simply that Penwortham is not shortlisted. None of the projects researched concluded that Penwortham was better for the reasons given in the Minister's statement to Parliament. The reviews found are:	
	 UK Offshore Energy Strategic Environment Assessment SEA • North West Coast Connection NWCC • Celtic Array • Walney Extension Offshore Wind Farm • Walney 2 Offshore Wind Farm • Isle of Man – England Interconnector. 	
	Table 3 below provides further detail and links to information about these projects:	





Reference	Written Representation Comment	Applicants' response
	Table 3 : The following show multiple projects where Stanah has been shortlisted and/or selected over Penwortham to connect offshore cables with the National Grid Network.	
	2008 - National Grid Input into UK Offshore Energy Strategic Environmental Assessment Impact on Onshore Electricity Transmission System Issue 1.0 Date of Issue December 2008 . For the NW only Stanah & Heysham considered as Local Connection Points (Table 39 and 40) . At p75 it is highlighted that the north Irish Sea area consists of a 400kV double circuit transmission ring (Heysham ring) that links Hutton, Heysham, Stanah and Penwortham substation sites.	
	2009 - 2016 NW Coast Connections (NWCC) project document (for connection to Moorside Nuclear Power Station cancelled in 2018) - Stanah, Heysham & Middleton shortlisted. Penwortham was also considered but rejected due to being too far in comparison to Stanah, Heysham & Middleton. Stanah was also subsequently thought to be too far in comparison to Heysham & Middleton. Nothing was noted about any constrained capacity on the grid. 2016 - See Appendix 1 - North West Coast Connections — Consultation on the project's Initial Needs Case and suitability for tendering	
	up to 2014 when project cancelled - Celtic Array Offshore Wind Energy Project Only Stanah & Wylfa were considered as connection points. See National Grid North West Coast Connections Project— Strategic Options Report for the North West Region - 19 October 2012 Issue 2, version 0.00	
	 2012 completion - Walney2 OWE - Stanah selected with Transmission Assets hosted on Hillhouse site. See <u>Ofgem Assessment cost</u> - <u>Walney2</u> <u>OFTO Blue Transmission</u> - 2009 - Walney Extension - <u>Scoping Report</u> shows - Heysham, Stanah & Penwortham considered. <u>Heysham/Middleton</u> ultimately selected. 	
	 2000 Isle of Man-England Inter-connector via ENWL DNO network, Stanah and Irish Sea landfall. Some further background 	
	It is also noted that National Grid manages Stanah and Penwortham as a single group (R4). This is presented in the National Grid Electricity Ten Year Statement 2024 - Appendix A -	





Reference	Written Representation Comment	Applicants' response
	System geographic and schematic drawings - Figure A5: GB Transmission System ETYS* Zones (https://www.neso.energy/document/351911/download). It is not clear therefore why there is a material distinction in the reference to connectivity to the wider network.	
	vii. It is noted that the statement to Parliament makes no reference to any constraints regarding grid infrastructure capacity associated with Stanah.	
	In summary, it would appear that no evidence is provided referring to published material to support the written statement to Parliament:	
	of a consistent assessment & comparison using up to date information regarding Stanah; or	
	• that was published in the HNDR reference given in the statement, with other options assessed for connecting the Morgan and Morecambe projects.	
	It may be that out of date information was used in respect of another connection project involving Stanah, but it is not certain whether that is the case at this stage. In 2008, the National Grid Input to the UK Offshore Energy Strategic Environment Assessment (SEA), only identified Stanah and Heysham for Local Connection Points in the North West. A summary table was generated showing matters found. This is reproduced in Table 4 below. There was no assessment of the suitability of Penwortham in the 2008, it not having been shortlisted.	
	This information presented in Table 4 regarding constraints on access and land for expansion is now out of date,. This is demonstrated by the use for exactly these purposes of land on the	





Reference	Written Representation Comment	Applicants' response
	adjacent Hillhouse site e.g. in 2012 for hosting the Walney 2 transmission assets. In addition, it is not necessary to involve access to Morecambe Bay if Stanah was being assessed for connecting with Morecambe or Morgan projects. If an assessment and comparison of Stanah was conducted correctly, then there should be evidence of that available for publication. To date that has not been forthcoming.	
	Any expansion of Stanah or upgrade of the existing 400kV overhead line linking Penwortham with Stanah and beyond to the consumer, would relate to potential capacity requirements. If this is required, having finally assessed the latest situation which may now wish to include the Mooir Vannin offshore wind project transmission assets and other potential generating sources. This may be realised through applying various software & sensor based management to reconductoring the line options, both of which are being demonstrated currently for lines emanating from the Penwortham substation. The latest IET Transmission Technologies report lays out a series of engineering and management options that can be applied.	





Table 4

The following is taken from the 2008 National Grid Input into UK Offshore

Energy Strategic Environmental Assessment Impact on Onshore Electricity

Transmission System Issue 1.0 Date of Issue December 2008. It shows matters found regarding the Stanah, one of the two shortlisted connection points for the North West

Table 40: Stanah Lo	cal Connection Work
	cal Connection Work
Existing Configuration	Outdoor 400kV AIS Transformers Feeders
Local Environment	Urban area, adjacent to industrial area – ex-chemical works, brownfield areas. Substation enclosed on 3 sides by domestic housing and a caravan park. Site is <0.5km from the River Wyre which is RAMSAR and SSSI designated.
Onshore Transmission Works & Issues	Need to introduce 400kV GIS substation, site issues to create in space desired. Issues of co-ordination with offshore transmission owner, access routes, future development constraints, planning permissions. System outage issues to permit construction/connection
Offshore Transmission Works & Issues	Space for equipment, may require location of installation on brown-field land North West of substation. Issues of land availability, Cable access routes, program, planning permission and noise levels.
Approximate Length of Cable Route from Coast	~4km directly west to coastline
Impact of Varying Levels of Installed Capacity	2 substation bays required for developments up to 1.1GW, given technology and optimisation assumptions used
Indicative Onshore Transmission Costs	£30m
Estimated Timescales for 'Local' Onshore Transmission Work	5 years





Reference	Written Representation Comment	Applicants' response
	Bringing the assessment up to date to reflect the current access environment for Stanah, it is noted that the principal owner of the HTEZ, NPL, has submitted a RR (RR-1656) on 27th January that Representation by NPL Hillhouse Thornton Facilities Management (NPL Hillhouse Thornton Facilities Management) "We do not consider the cable route and associated Sub Stations between the Wind Farm and the On Shore Electrical Grid connection point at Penwortham to be the most appropriate route. We do not believe that an alternative route for the connection at Stanah, Thornton Cleveleys, has been adequately reviewed. We believe Stanah to be a more appropriate grid connection point." By utilising Stanah connection point, the HTEZ is available to host transmission substation works for the Applicants and National Grid as deemed appropriate. HTEZ also has extensive utilities and highways infrastructure provision that provides connectivity across the site to 2km across open space to the Irish Sea shore, at an area a short distance north of the established land falls of the Walney 2 and Isle of Man-England Inter-connector cables.	
REP1-083 083.8	Intensification of Impacts and Inconsistency of Assessment Criteria In proposing an approach involving a shared corridor but independent project development schedules to National Grid in the HNDR, the Applicants have actively chosen to intensify the adverse impacts on a particular Community. The Applicants' proposal effectively doubles both the direct and indirect impacts on the local Community due to the uncertainties associated with two independent projects being presented as being in one framework.	The Applicants note the comment relating to impacts associated with a shared corridor and refer The Lancashire Association of Local Councils Fylde Area Committee EWG to sections 3, 4, 5, 6 and 7 of the Applicants response to Hearing Action Points: ISH1 6, 8, 9, 19, 26 & 28 - Rev F01 (REP1-039). In particular Section 3.7.1.7 of REP-039, which summarises: "the NPSs recognise that reduced impacts as a result of co-ordination may include impacts on communities more broadly, for example, paragraph 2.13.14 of NPS EN-5 recognises that the benefits of co-ordinated transmission proposals are expected to reduce impacts and that "These reduced impacts could, for example, relate to: fewer landing sites and reduced landfall impacts; reduced overall cable length; and fewer cable corridors and reduced impacts from these". This is the case





Reference	Written Representation Comment	Applicants' response
	There is no evidence presented by the Applicants as to how that has been assessed. Nor, how it was concluded as having been more beneficial than the alternatives e.g. to using two separate cable routes and connections to Stanah/Middleton/Heysham/Penwortham and or to reduce the impacts by use of existing infrastructure & compliance with local development plans e.g. Stanah and Hillhouse Technology Enterprise Zone.	for the Project, and (as noted above) is also a clear conclusion in the HND, appended at Appendix 1A of this note. Reducing the proliferation of infrastructure is a core benefit of the approach proposed by the Projects."
	It may be considered to be ironic that the Applicants' consultants employed to secure a route and find sites are likely to have even treated as a constraint, the very infrastructure established to connect Penwortham to transmission assets in the Irish Sea. Specifically: at the "Penwortham end" the infrastructure constraint maps will have likely highlighted the 400kV twin circuit overhead lines to Stanah; and by Stanah, the HTEZ hosting Walney 2 transmission assets.	
REP1-083 083.9	Despite the Applicants having proposed their route to National Grid in the HNDR, it is observed that in the latest RR by National Grid, it is apparent that there are multiple conflicts with National Grid's assets in the vicinity of their Penwortham Substation (see RR-1598) and with the Applicants' proposed approach.	As explained in response to REP1-083.6, the Applicants consider it important to correct the mistaken premise that the Applicants proposed their route to National Grid in the HNDR. They did not. They proposed that NESO's original proposal for electrically integrated cables in a single corridor connecting at Penwortham should be electrically separate cables in a single corridor connecting at Penwortham, to enable deliverability of the two projects.
		In relation to the NGET Relevant Rep, this is a normal response from a statutory undertaker seeking to secure protective provisions to protect its assets during construction and operation. The Applicants have explained in Section 3.1 of REP1-039 that at the Pol the NETS is wholly owned by NGET, and so NGET must ensure its protection, and protective provisions to a DCO are a common approach. The Applicants continue to engage with NGET regarding the Project's interaction with their assets. The status of negotiations is set out within Part 2 of the Land Rights Tracker (REP1-065), the Applicants are confident that matters can be agreed before the close of examination.





Reference	Written Representation Comment	Applicants' response
REP1-083 083.10	Also in spite of the Applicants have chosen to specify an abnormally large footprint for two separate independent substations they are proposed to be located visibly between each other. This intensifies the scale of the urbanising impact of the substations in the Green Belt and Areas of Separation.	With regard the point raised on the footprint of the onshore substations, the Applicants refer The Lancashire Association of Local Councils Fylde Area Committee EWG to the Applicants response to Hearing Action Points: ISH1 20 Comparable Onshore Substation Platform Footprints (REP1-042).
REP1-083 083.11	The Applicants described that they set a 5km search radius to locate their converter substations. It would appear that when that failed to secure sites, an ad hoc 8km radius was set. At its extremity of that radius, it just happened that the key critical Rural Fylde Green Belt designated land was deemed to be applicable through an extraordinary approach to a BRAG assessment. It is noted that this is an action for the Applicants' to satisfy the Examination Authority of the efficacy of the assessment.	With regard to the 8 km area of search the Applicants refer The Lancashire Association of Local Councils Fylde Area Committee EWG to ISH1_10, Agenda item 4(d) within The Applicants' response to Hearing Action Points due at Deadline 1 - Rev F01 (REP1-037).
REP1-083 083.12	Given the Material Alternative of the established northern route utilising the local energy related development infrastructure including Stanah and HTEZ, and other smaller sites such as Preston Docklands industrial development area, the Applicants' claim of having Very Special Circumstances" to justify the permanent urbanising of the Greenbelt, in fundamental conflict with the strategic planning of the local development framework, is not considered sound and cannot be upheld.	The Applicants response with regard to the case for Very Special Circumstances is set out within The Planning Statement (Rep1-032), which forms part of the application.
REP1-083 083.13	Conclusions It is now apparent that the Applicants proposed the route recommended in the output of the HNDR. That proposal was based upon a shared land substation site, which is not in accord	The Applicants have set out their response above to the matters raised within REP1-083. In particular, the Applicants have explained the core assumptions which underpin the EWG's conclusion are incorrect: (i) the Applicants did not propose the route recommended (or PoI) in the output of the HNDR; (ii) the co-located substations proposed deliver the HNDR





Reference	Written Representation Comment	Applicants' response
	with the Applicants' submission. The HNDR showed that even based on a shared substation site the recommended route was not compliant. There is no evidence of any attempt to consider compliant material alternatives, including in the content of the Minister's Written statement to Parliament to which the Applicants referred.	recommendation for a shared cable corridor; and (iii) it's manifestly clear from the HNDR that a range of Pols were considered, including Stanah and separate radial connections to different Pols. Of primary importance within these is the Applicants response to Hearing Action Points: ISH1 6, 8, 9, 19, 26 & 28 - Rev F01 (REP1-039) which provides the Applicants case with regard to consideration of alternatives.
	The Applicants have still not demonstrated how they concluded that their proposed route is more compliant than the Material Alternative.	
	Appendix 1 illustrates the evident beneficial characteristics of the established Material Alternative route. This can connect Penwortham and beyond with the transmission assets in the Irish Sea, utilising the existing infrastructure of the National Grid 400kV twin circuit overhead transmission line, the National Grid Stanah substation and Hillhouse Technology Enterprise Zone (HTEZ).	
	The Material Alternative Route offers a faster, cheaper, less adversely impactful route, connecting the Morgan & Morecambe arrays to the National Grid, Penwortham and beyond to Consumers.	
	It is believed that the Examining Authority is proposing to approach National Grid, to understand how they can evidence how they assessed and excluded Stanah/HTEZ in delivering the efficient, economic lowest whole system cost to the consumer.	
	It is also requested that the Examining Authority asks Ofgem and the DESNZ Minister of State, the Honourable Mr Shanks MP, to provide evidence of the assessment to support their written	





Reference	Written Representation Comment	Applicants' response
	statement and how that will achieve the lowest cost to the consumer and ejected Stanah/HTEZ from their downs election.	
	EN020032-001224-1 - Lancashire Association of Local Councils Fylde Area Committee Energy Working Group - Written representations, including summaries if exceeding 1500 words.pdf see for Appendix 1 Figures.	